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Trade and Industry

27 April 1979

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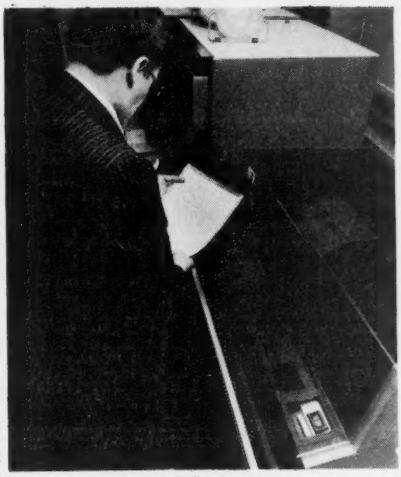

Can credit factoring aid industrial expansion and exports? The case is argued in our special report (centre pages)

Trade and Industry

Incorporating the Board of Trade Journal

Volume 35 no. 4

Pages 145 to 192. 27 April 1979.

Price 40p. Every Friday.
Annual subscription including postage £30.60.
Overseas airmail rate £42.40.

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Subscriptions: HMSO, PO Box 569, London SE1
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ABC Member of the Audit Bureau of Circulations
ISSN 0006-5323

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Home news

European manufacturing grows in Scotland

The growth of jobs and investment in Scotland by European manufacturing companies over the past five years has been impressive according to a survey published on 18 April by the Scottish Council.

The study, undertaken by the council's research institute, shows that the number of jobs in these companies has more than doubled from 6000 to 14 000, the number of companies has risen significantly from 29 to 73, and capital investment has increased from £27 million to an estimated £128 million in the period.

In terms of numbers of companies the Netherlands with 18 manufacturing companies heads the league table followed closely by Switzerland with 13, Sweden 10 and Germany nine. Other figures are Norway six, France Five, Denmark and Eire three each, and Belgium two.

Although compared with north American owned manufacturing companies, with nearly 200 units and 92 000 employees in Scotland, the scale of operation by European owned firms is modest, their growth record is impressive. The council's report emphasises their significance in some sectors, notably food processing, chemicals, mechanical engineering, electrical engineering and other manufacturing including sports equipment. They together account at present for 2 per cent of Scotland's manufactured exports, only 17.3 per cent of their estimated £324.3 million output being destined for overseas markets. North American owned companies in Scotland export 40 per cent of their total £2 billion in output. This suggests that European companies in Scotland are geared to meet UK market opportunities, says the council.

'That's what I'd call a kilt-edged investment'

New orders for insurance brokers

Two new orders affecting insurance brokers are published today (27 April). They come into operation on 1 July.

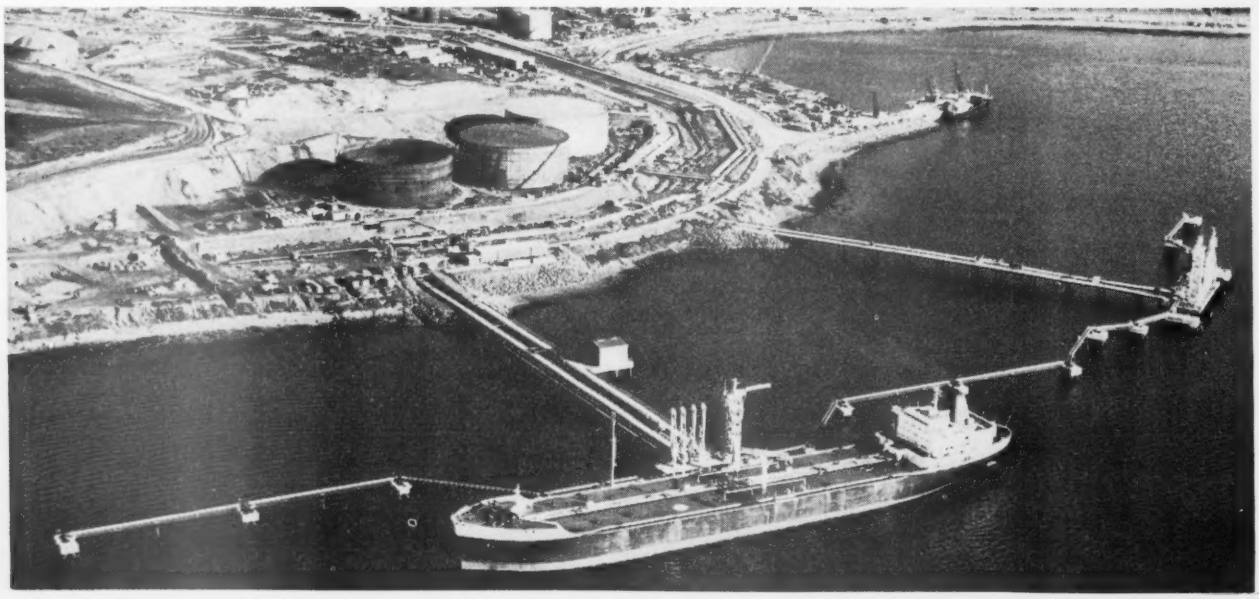
Provisions for accounts and business requirements for registered brokers are contained in the Insurance Brokers Registration Council (Accounts and Business Requirements) Rules Approval Order 1979 (SI 1979/489). The order approves rules made by the Council under section 11 of the Insurance Brokers (Registration) Act 1977.

The rules lay down requirements for the carrying on of business by practising insurance brokers and enrolled bodies corporate. They contain requirements as to working capital, the excess of assets over liabilities and the maintenance of independence, and as to accounts and accounting records. Lloyd's broking businesses are exempt from the rules.

A further order published today contains an amendment to the Insurance Brokers Registration Council (Registration and Enrolment) Rules 1978 (SI 1978/1395). The Insurance Brokers Registration Council (Registration

Europe's largest oil terminal nears completion at Sullom Voe

Sullom Voe oil terminal, a massive £800 million project, is nearing completion in the face of enormous climatic and technical difficulties. Bitterly cold winters and short daylight hours meant that special installations had to be built over the work in progress to protect it from the elements. Rough conditions at sea played havoc with delivery schedules and the rain, which can be torrential, often turned the site into a sea of mud. The first oil from Britain's North Sea oilfields arrived at the terminal, the largest in Europe, at the end of 1978. During 1979 nearly 500 tankers are expected to visit Sullom Voe rising to nearly 650 during 1980 as more fields come on stream.



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So be a sensible chap and make full use of me. After all, I'm here to help you."

We're here to help you.

and Enrolment) (Amendment) Rules Approval Order 1979 (SI 1979/490) approves rules ending the exclusion from the 1978 rules of practising brokers and bodies corporate (other than Lloyd's brokers), now that the conditions under which they must carry on business have been specified in the accounts and business requirements rules.

Bed prices order withdrawn

Because of an omission from its preamble, a recent order prohibiting the setting of recommended retail prices for beds and certain types of bargain offers claimed for them has been withdrawn. It is the Indication of Prices (Beds) Order 1978 (SI 1978 No 1716).

The Department of Prices and Consumer Protection is advising all trading standards authorities that the order is ineffective. However, the ruling does not affect the Price Marking (Bargain Offers) Order 1979 (SI 1979 No 364) which supersedes the effect of articles 3 to 5 of the 1978 order.

From 2 July, beds will be subject to the provisions of the 1979 order in the same way as are other goods but, additionally, by virtue of article 5 comparisons with recommended and similar prices and charges will be prohibited.

Price Commission looks at video tape recorders

Although all video-tape recorders at present on sale in Britain are imported, the net cost to the UK balance of payments is as yet only about £25 million a year but adverse balances in future years are likely to be higher, says the Price Commission in a report published on 19 April.

It adds that this is a factor – along with others such as benefits to employment and technical skills – which suggests that there 'may be some advantage in the UK having its own manufacuturing industry'. However, it is unlikely that the UK industry could enter the market with a competing product at present, says the report.

The commission endorses the industry view that the best way for Britain to involve itself in the manufacture of video tape recorders would be to persuade existing foreign manufacturers to establish a UK plant as a European supply centre, and to encourage other companies to assemble kits of parts supplied from it.

Average retail prices for video tape recorders in Britain are higher than those in Japan and the United States. But at this early stage of the development of the UK market the commission does not feel that such differentials are a matter of concern.

Importers' and retailers' margins are not excessive, the commission says. With over a dozen importers currently selling these recorders the commission concludes that the consumer interest is adequately protected by the present degree of competition. However it adds, 'We doubt whether it will be possible to make a valid assessment until the market has matured, which in our view is unlikely to be for a year or two'.

British sales of video-tape recorders increased from 16 000 in 1977 to about 82 000 in 1978 and the proportion of sales for home as against commercial use rose from 31 per cent to 88 per cent. It is estimated that UK sales will reach 100 000 in 1979. The Secretary of State for Prices and Consumer Protection, Roy Hattersley, is considering the report and will be consulting interested parties on its findings.

'Price Commission sectoral examination report 15: prices, costs and margins in the distribution of video tape recorders and their 'accessories', is available from HMSO at 90p.

Official appointments

British Shipbuilders. Eric Varley, Secretary of State for Industry, has appointed Mr R. J. Daniel to become a full-time member of the board of British Shipbuilders. He will serve as a member responsible for warship building with effect from 1 April.

Post Office. Mr Varley has announced that the terms of appointment to the Post Office of both Denis Roberts, managing director, posts, and Kenneth Young, member for personnel and industrial relations, have been extended until 31 December 1980.

Gas consumers' councils. Secretary of State for Prices and Consumer Protection Roy Hattersley has appointed Celia Goodhart as chairman of the North Thames Gas Consumers' Council until 11 May 1982; Michael Gibson as chairman of the East Midlands Gas Consumers' Council until 28 March 1982 (succeeding the late Sir Mark Henig as chairman); Councillor Mrs J. Smith, Councillor P. J. Cumming, and Councillor P. E. Battisto as members of the West Midlands Gas Consumers' Council until 31 October 1981; Councillor D. Grey as a member of the Wales Gas Consumers' Council until 30 September 1981; Councillor C. J. Crowley as a member of the Wales Gas Consumers' Council until 30 September 1981; and Mr M. J. Thomas as deputy chairman of the North Western Gas Consumers' Council until 31 May 1981.

Electricity consultative councils. Mr Hattersley has appointed Councillor Mrs W. M. J. Reynolds, Councillor Mrs M. S. Singh and Councillor Mrs P. A. T. Yardley as members of the Southern Electrcity Consultative Council until 31 August 1981, and Mrs Mair Jones as a member of the Merseyside and North Wales Electricity Consultative Council until 31 March 1981.

New look at Dover dock

Improvements costing £100,000 to passenger and customs and immigration facilities at Dover's train ferry dock are now completed says Sealink.

The principal development is on the first floor in the transit hall which has been enlarged to increase the floor area of the terminal to provide a spacious, well lit and carpeted passenger lounge. Offices on the north side of the hall have also been refurbished to provide better accommodation for customs and immigration services.

Other developments include the provision of a new covered area for passengers, near the existing ramp, and an improved covered walkway leading to the customs and immigration controls.

Further modernisation at Dover train ferry dock is planned and will include improvements to the ground floor of the transit hall and modern control facilities for coach traffic.

Keeping the airport tunnel spick and span

A mobile unit that enables tunnels and underpasses to be cleaned without restricting traffic flow has recently entered service with the British Airports Authority. Supplied by the General Descaling Company, the unit is seen here cleaning the mile-long Heathrow airport tunnel, an operation carried out three to four times a week. Walls and roof are washed with a water/detergent mix while the unit is travelling at speeds up to 15 mph. Normal traffic movements can be maintained during cleaning. The vehicle usually takes about 20 minutes to clean each side of the tunnel.

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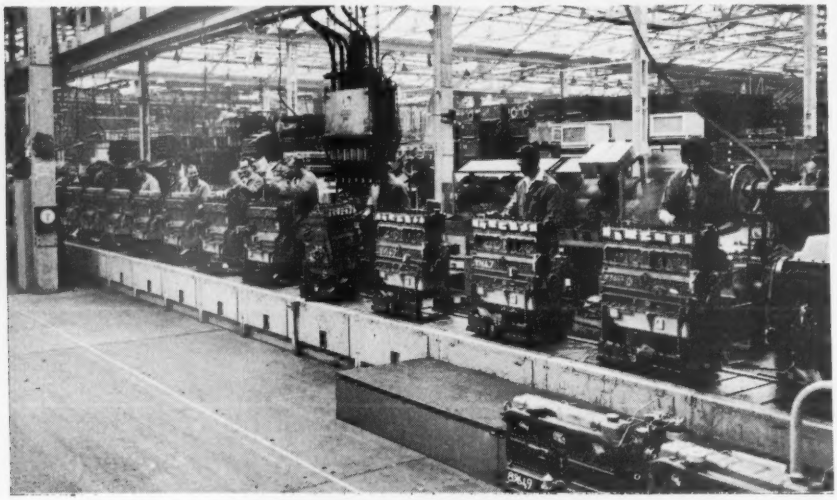
No price restrictions recommended for Perkins



Perkins, the largest specialist producer of diesel engines in the world, faces strong competition which is likely to intensify, says the Price Commission in its investigation report published on 19 April. The commission concludes that in view of the degree of competition in the diesel-engine market, the level of Perkins' profitability and its need to increase capital expenditure, it does not consider any price restriction would be justified.

Perkins' future success will depend on its research effort, its abilit to fund the developments arising from it and its efficiency, says the report. The commission found that while the company's operations are generally efficient, three areas are a cause for concern.

First, the number of engine variants produced – there are only 10 basic engine types but some 4500 variations – seems larger than desirable. The company's programme of eliminating unnecessary variations should therefore be pursued with vigour.

Second, while some of the plant is highly advanced technologically other elements are extremely old and need replacement. Moreover, the present plant layout is far from ideal. Thus, says the report there is a need for capital expenditure to modernise some existing processes as well as a substantial prospective level of investment to bring improved engines to the market. Perkins' management is well aware of these needs, but funding considerations are limiting its ability to take action.

Third, there is scope for improving labour efficiency. Some inefficiencies are caused by non-labour factors such as plant breakdowns (partly due to the age of some of the plant) and stock and production control problems, but labour utilisation also needs improving.

Substantial funds will be required for product development and capital re-equipment, the report states. However, the ability of the company to generate these funds internally is limited. Return on capital employed on a current cost accounting basis over the last five years has been either negative or very low. Similarly net margins over the same period, although improving have averaged under 6 per cent. Moreover, Perkins' ultimate parent company – Massey-Ferguson Ltd – is at present in a difficult financial situation. Hitherto, Perkins has not felt it worthwhile to apply for government financial assistance – though it has no objection in principle.

The commission says that in view of the magnitude of the capital investment required, this is an avenue which will need to be explored for the future. It notes that diesel engines have been identified as a priority sector in the government's Industrial Strategy.

Secretary of State for Prices and Consumer Protection, Roy Hattersley, has received the commission's report. The company has already been permitted to implement in full the increases proposed under the commission's discretionary powers and the safeguard regulations. Since the commission recommends no further restriction on the increases sought, the secretary of state has concluded his consideration of the report.

'Price Commission investigation report 35: Massey-Ferguson-Perkins Ltd, increases in prices of engines and parts' is available from HMSO, price £1.00.

Sealink achieves record trading profit

The former shipping and international services division of British Rail achieved a record trading profit of £12.2 million in 1978, its last year as a division. This compares with a trading surplus in 1977 of £9.1 million, a 33½ per cent improvement. The division, reconstituted as a company, Sealink UK Ltd, on 1 January is a wholly owned subsidiary of the British Railways Board.

Sealink carried over 18 million passengers, 2 million cars, 500 000 road-haulage vehicles – all substantial increases on 1977 levels. It also shipped 220 000 trade cars, 130 000 containers and 950 000 tonnes of freight – of which 900 000 tonnes were on the train ferry services – 35 000 tonnes more than in the previous year.

Decision on Swedish air service

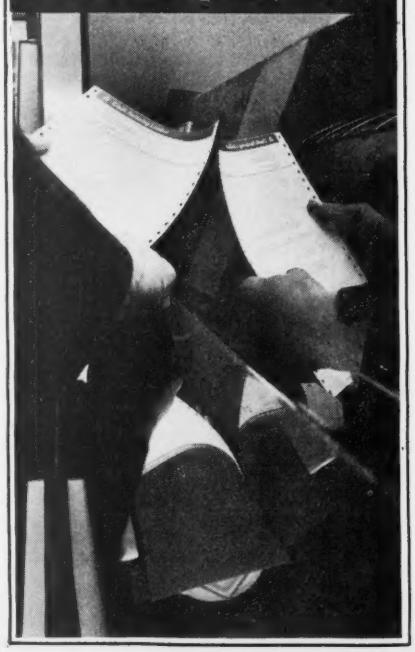
The Civil Aviation Authority has turned down British Caledonian Airways' application to operate between Gatwick and Sweden – now a monopoly route under the new Scandinavian air services agreement. On the evidence before it, the authority did not consider that the offer of innovative fares by BCAL, highly attractive though it might be, was a sufficient reason for taking away from British Airways routes yielding a revenue in excess of £20 million.

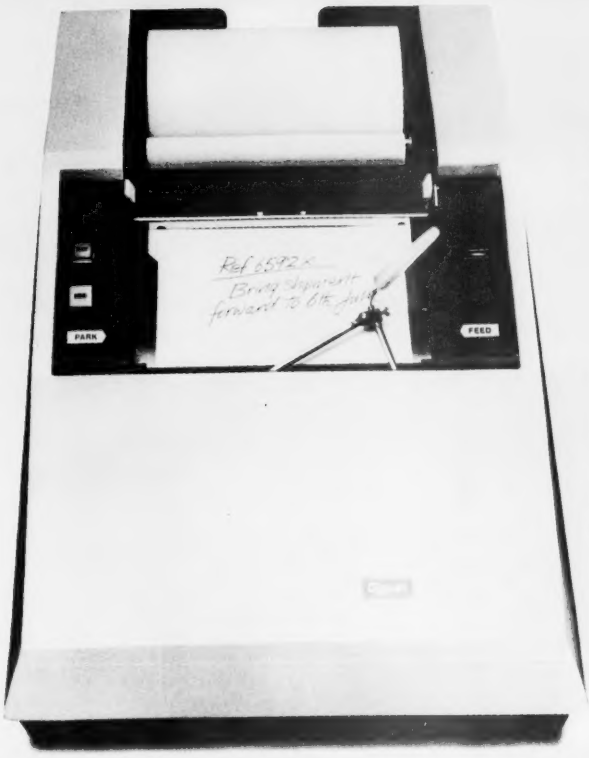
The decision follows a re-hearing, on the direction of the Secretary of State for Trade, following an appeal by British Airways, of applications previously granted to BCAL to operate alongside British Airways together with new applications by BCAL to take the place of British Airways.

In its decision the CAA says that the considerations which led it originally to grant the applications before the new air services agreement was made, have lost none of their force. The authority sees a continuing role for British Caledonian, as the principal resident Gatwick operator of scheduled services, in the development of services from Gatwick to the continent.

'T & I special report – centre pages

Credit factoring an aid to expansion and exports?





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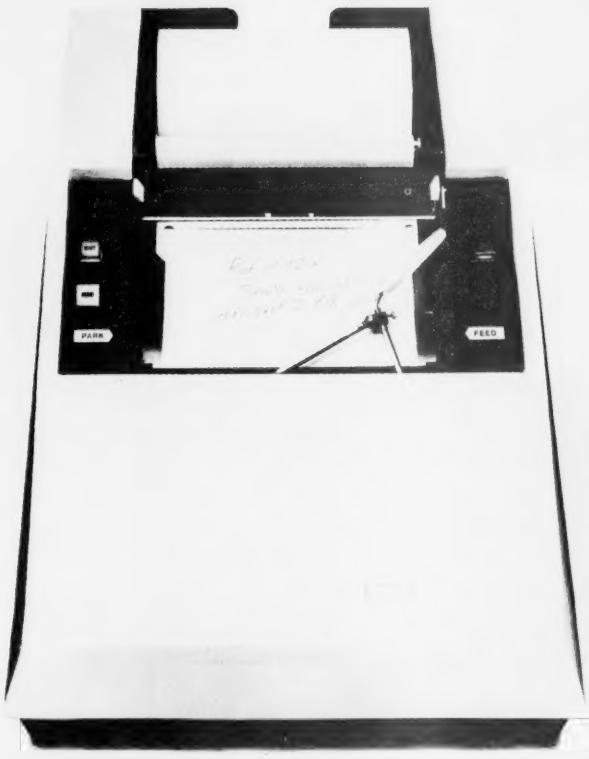

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Fleetwood and Ulverston
Terrace unit type factory of 900 m² at Tameson Road, Fleetwood, Lancs, divisible into two individual units of 450 m² each. The premises should be ready for occupation in October.

Three factories of 450 m² each at North Lonsdale Road, Ulverston, Cumbria. Premises should be ready for occupation in November.

Inquiries regarding purchase or lease: Mr C. Giles, Department of Industry, North West Region, Sunley Building, Piccadilly PLaza, Manchester M1 4BA, tel. 061-236 2171.

Skegness
Two factories of 540 m² each on the Skegness industrial estate. They should be ready for occupation in September.

Inquiries regarding lease: Regional Director, Department of Industry, East Midlands Region, Severns House, 20 Middle Pavement, Nottingham NG1 7DW, tel. 0602 56181.

Moving in at Pennywell
Marland Pipework has moved into premises of 225m² built on the Department of Industry's Pennywell industrial estate, Sunderland. The company is engaged in the fabrication and erection of pipework and general engineering activities for all types of industry. It expects to provide a further 12 jobs within the next year as part of its planned growth.

Gatwick passenger figures take off

Passenger traffic using Gatwick in February increased by 28 per cent, well above the airport's recent trends. Domestic traffic grew by 26 per cent and individual routes carrying UK winter holiday makers showed increases of between 20 and 100 per cent – with faster growth generally to countries with softer currencies.

Altogether nearly 2.3 million passengers passed through the seven airports operated by the BAA during the month. Heathrow (up 3.5 per cent) was affected by bad weather at the beginning of the month. Traffic on domestic and Irish routes increased by 12 per cent, while a 17 per cent drop in Middle Eastern traffic was due to restrictions on travel to and from Iran.

New charter flights offset a drop in Scandinavian traffic to give Stanstead a 9 per cent increase. Cargo at BAA airports increased overall by nearly 8 per cent in February, with most of them benefitting early in the month by a continuation of the road transport dispute.

Government sales

8 and 9 May 1979 – Miscellaneous

Location:
Garrison Theatre, Graven Hill, Bicester, Oxon

Auctioneers:
Midland Marts Ltd (Dept L), 4 Market Square, Bicester (08692 2073)

Stores lying at Bicester, Thatcham and elsewhere including clothing and textiles, furniture, tentage, sleeping bags, tyres, MT spares, hand tools, cameras, electrical equipment, milling and grinding machines, fork lift trucks, minibuses, vans, tractor and many other items.

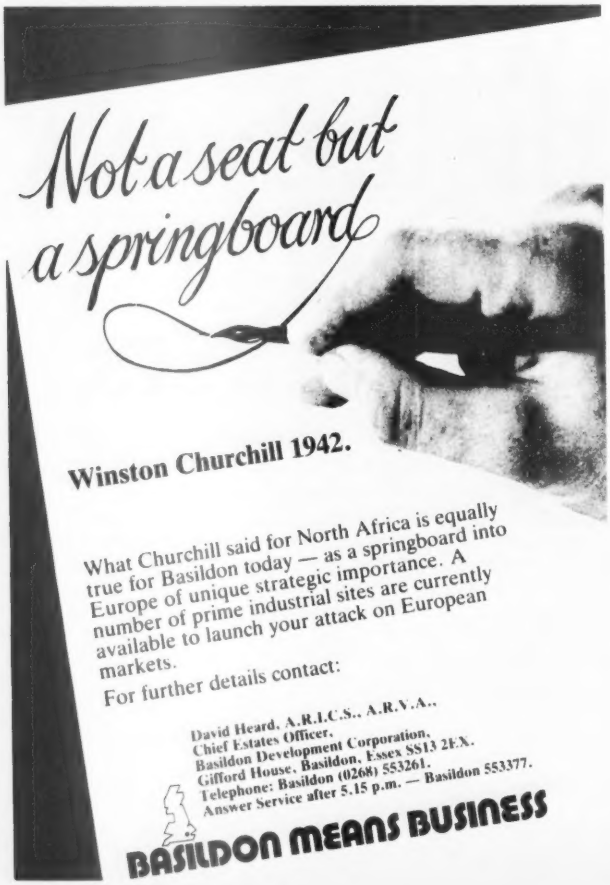
16 May 1979 – Miscellaneous

Location:
Auctioneer's premises

Auctioneers:
Woolland Son and Manico (Dept L), Kinterbury House, St Andrew's Cross, Plymouth (0752 69292)

Stores lying at Plymouth, Exeter and other places comprising, clothing, furniture and household effects, watches and clocks, optical and photographic equipment, electrical and MT spares, tentage, scrap metal, Bedford trucks, double decker buses, and many other items.

Catalogues, which give details of the lots, conditions of sale, viewing times etc, are available from the auctioneers from two weeks before and up to the day of the sale, price 40p, postage 15p.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BASILDON MEANS BUSINESS

WEMBLEY AUCTION SALES 1979

1 May

View Days:	Day preceding and morning of sale
Location:	Department of the Environment Property Services Agency Supplies Stores India Pavilion Exhibition Grounds Wembley, Middx. Tel. 01-903 2508
Description of Goods:	Miscellaneous office equipment and furniture etc. (Potential buyers are advised to refer to the official catalogue available from the auctioneers, price 20p)
Auctioneers:	Messrs Hollingsworth Westcombe House 56/58 Whitcomb Street Leicester Square London WC2H 7DR Tel. 01-893 1875

United States: committed to metric

Faced with a tide of external and internal pressures, the United States looks set to adopt the metric system of weights and measures within a decade. In London on 18 April, Stanley R. Parent, deputy executive director and director of research co-ordination and planning of the US Metric Board, tells Peter Curtis of his country's political commitment to metric conversion and the role of his board in the changeover.

'The GAO report has been laid to rest.'

Decision point for the United States was the signing of the Metric Conversion Act by President Ford on 23 December 1975. It stated that it would be a voluntary changeover and established the US Metric Board. Since then there has been considerable activity both in the private and public sectors of the United States to prepare for the metric change.

Doubts have recently been expressed, however, about the United States government's commitment to going metric following the publication of a report to Congress by the US General Accounting Office (GAO) in October 1978. This body – a non-government arm of Congress – said that the existence of a dual system of measurement for any length of time is impractical, inefficient, uneconomical and confusing. It urged Congress to consider whether the current policy of voluntary metrication should be continued or changed. Mr Parent was asked if this meant that the United States was faltering in its declared aim of going metric.

Industrial outcry

'There was a good deal of industrial outcry about that report and it has now been essentially laid to rest. However, it raised a question which said something to the effect of – "now wait a minute; is it true that we are heading towards doing something with a federal agency that really does not have policy to support it?". The Metric Board decided it could not allow that question to simply remain unanswered. What we did was to go to the people who we thought could answer that question and provide a clear indication of what Congress intended when it enacted the conversion legislation.

'Colin E. Teague, chairman of the House of Representatives' committee on science and technology, pointed out that the legislation which was sent to the President in December 1975 was the result of a lengthy legislative consideration stretching over several Congresses and the Metric Conversion Act was a compromise, in the best sense of the word, between the sharply differing views on the subject. It was a compromise which set forth a clear policy to facilitate the conversion to metric use in our country in order to reduce the total cost and inconvenience to our people.

'The intent of the act, Congressmen Teague continued, was that the Metric Board should seek to reduce the time needed to make the conversion and to co-ordinate conversion activities so as to achieve the benefits of metric use sooner and reduce the cost and inconvenience arising from an unduly prolonged period of dual use. Similar views were expressed by Senator Adlai E. Stevenson, chairman of the Senate sub-committee on science, technology and space.

Significant endorsement

'However, a most significant endorsement of the metric policy was given on 3 April by the executive office of the President. David Rubenstein, deputy assistant for domestic affairs and policy, told a meeting of the American National Metric Council, a private sector organisation, that the administration believed that there were significant benefits from metric conversion; that the administration supported a strong interpretation of the Metric Conversion Act; and the administration was taking steps to encourage metric conversion, both in the government and in the private sector. He further said that the administration believed the act to be a sound act, and it is interesting to note that he was endorsing the action of a prior administration and a different political party.'

The United States is the last major industrial country to set off down the metrication road. The technical barriers to overseas trade presented by the United States' continued use of customary units was a major concern of the US Metric Board, explained Mr Parent.

'Research around the world by major American corporations, has shown the range of civil and criminal penalties to which American exporters are becoming liable in various foreign lands through not being able to trade in metric. Frank J. Feeley, president of the American National Standards Institute, pointed out to the Metric Board on 10 April that the day was fast approaching when conventional US measurement units and product sizes would no longer be accepted in international standards. The institute, counterpart of your British Standards Institution, is our official representative in the International Organisation for Standardisation and the International Electrotechnical Commission. These organisations are getting a little impatient with the United States for not working harder on metric standards. This is one of the issues that is pressing us to move more quickly.'

A number of major American manufacturers, particularly in the automotive industry and electronics, have plans to go metric with their products during the 1980s. The clothing industry, producers of wines and distilled spirits, and pharmaceutical manufacturers are changing over to metric very shortly. Children are being taught the metric system in schools throughout the United States. The US Metric Board's role, said Mr Parent, is one of co-ordination, encouragement and fact finding.

'We are reaching out into both the public and private sectors. Policy level representatives of all federal agencies have been brought together in Inter-agency Committee on Metric Policy. We are working closely with the American National Metric Council, which has already done a good deal of work in the private sector. The council represents basic industries, like chemicals and steel, through to food retailing.

'One of the first fact-finding tasks being undertaken by the board is to look at state and federal legislation and regulations to find out where there would be barriers to metrication. Although we are still in the process of doing this, the legal officer of the board has stated that any legal barriers are somewhat more perceived than real. There is an old law which says that you may not create a barrier to the use of the metric system, and where a state law says that any particular product should be sold only in customary units there is usually a simple procedure for allowing variance.'

A recent example of the board's co-ordinating and fact-finding role, described by Mr Parent, following an initiative by the State of California on the issue of selling petrol by the litre.

'The board is to hold federal hearings on 2 and 3 May on the national issue of converting gas pumps to compute gasoline prices per litre instead of per gallon. It sees its role here not as a proponent of conversion but as a proponent of the economy and cost to the consumer. From our early computations it appears that there may be a saving of as much as $150 million from changing to selling gasoline in cents per litre instead of converting the pumps to handle more than one dollar per gallon, a price which appears imminent.

'It would cost about $200 per pump to change the gearing and indicators to accept up to $1.99 per gallon, which only allows for a future two-to-one increase in price. To introduce a simple gearing to allow the gasoline to be measured out in litres appears to cost in the neighbourhood of $50 per pump. This, in dropping the price back to 20 to 30 cents per litre, would allow a four-to-one increase in price before you had to do anything further about it. And there are over a million gasoline pumps in the United States.'

With what appears to be inexorable progress by the United States towards the adoption of the metric system it was pertinent to ask Mr Parent when this would be achieved.

'Malcolm E. O'Hagan, executive director of the Metric Board said on 19 March that he expects our country's conversion to the metric system to be essentially completed before 1990. I think Americans tend, when possible, to capitalise on events. We find that it is usually easier when the tide is with us. With the political support for conversion since the passing of the Metric Conversion Act in 1975, there has been increasing interest in the change on the part of corporate America. I think we are going to move on metric more rapidly.'

New publications

How to negotiate successfully

Without the necessary background knowledge and experience, negotiating any type of contract is no easy task. Yet it is clearly one in which many businessmen may find themselves involved. Particularly for those who deal with contracts only infrequently a simple guide is a necessity, to avoid the worst pitfalls and to provide a valid background. Obviously those involved will want to obtain professional advice at the appropriate time, yet Patrick Hearn's new guide 'Successful negotiation of commercial contracts' will be a valuable tool in many hands.

Mr Hearn is a barrister and, as former legal director of a major manufacturing company, has advised on and drafted many commercial contracts and agreements. He provides advice on the various types of contract likely to be encountered. These include sole and exclusive agency agreements, licensing of industrial property and acquisition of private companies. The last three chapters deal with relevant legislation, including EEC competition rules. Each chapter comprises an introduction to the subject and questions and answers relevant to the final agreement. Each subject is seen, helpfully, in its international context, particular emphasis being placed on the EEC.

Successful negotiation of commercial contracts: a businessman's guide, by Patrick Hearn. Oyez Publishing, 1979. 131 pages. £7.50 (ISBN 0 85120 362 0).

Ventilation bibliography

Airborne pollution is one of the many hazards to be considered when examining the health and safety aspects of industry. Potentially toxic fumes and gases may be released intermittently or continuously as a result of a variety of industrial processes and where there is such danger sufficient ventilation is essential! The two methods normally used to deal with this problem are local extraction (where contaminants are removed near their source), or dilution (where fresh air dilutes the contaminant to an acceptable level).

A great deal of literature has been produced on types of processes and requirements for their use. Those involved with ventilation problems will find a recently published bibliography on the subject a valuable guide. Produced by the Building Services Research and Information Association, aimed primarily at its membership, it contains a carefully selected list of internationally published sources. There are 472 references gathered from journals, standards, and official and non-official publications, with bibliographical details and a short annotation for each item. Divided into five sections including general surveys, subjects covered include health and safety, particulate and fume control, and ventilation for specific industrial processes. The section on asbestos is timely. This is a useful guide, particularly for those without the time or resources to conduct their own research.

Industrial process ventilation: an annotated bibliography, by Stephen Loyd. BSRIA bibliography LB 107/79. Building Services Research and Information Association, Old Bracknell Lane, Bracknell, Berkshire. 1979. 79 pages; paperback £6.00. (payable with order) (Members £2.00). (ISBN 0 86022 071 0).

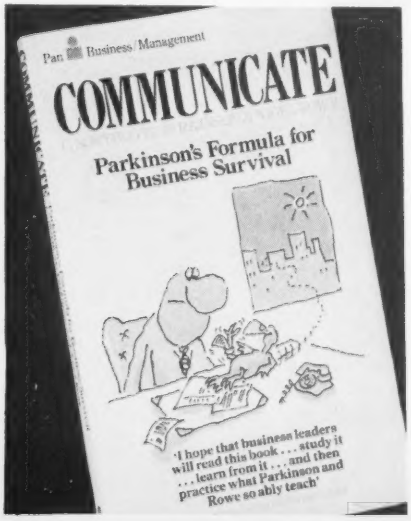
Communicating again

Successful management depends on the ability to communicate well. Two more books on the subject underline the importance of principles that some managers might be tempted to take for granted.

The books explore the subject from different angles. 'Communicate: Parkinson's Formula for Business Survival' suggests four essential elements. 'One has to know what to say, one has to know when to say it, one has to know to whom to say it, and one has to know how to say it'. If one of the four elements is missing, there cannot be communication.

It is a descriptive publication about society's general attitudes and ability to communicate rather than a practical handbook. It describes communication in the business environment, followed by a breakdown into the groups effecting industry such as leaders, government, stockholders and, more broadly, special interest groups and the media. There are practical guidelines, case studies and finally a discussion of the future for free enterprise.

The second book, 'How to communicate', is a do-it-yourself guide to successful communication. There are checklists of dos and don'ts. The book gives as a guiding rule – 'Keep it short and simple'. Written communication, efficient reading and attentive listening are followed by hints on speaking effectively in public, communicating effectively as an interviewer and interviewee, communicating at meetings and finally visual and numerical communication.


Pan Business Management
COMMUNICATE
Parkinson's Formula for Business Survival
'I hope that business leaders will read this book . . . study it . . . learn from it . . . and then practice what Parkinson and Rowe so ably teach'

Communicate; Parkinson's formula for business survival by C. Northcote Parkinson and Nigel Rowe. Pan Books Ltd, 1979. 240 pages; paperback, £1.20. (ISBN 0 330 25704 8).

How to communicate by Gordon Wells. McGraw-Hill Book Co (UK) Ltd, 1978. viii. 192 pages. £4.95. (ISBN 0 708 4520 4).

Bankers' century

Last month saw the centenary of the establishment of the Institute of Bankers and to mark the occasion the institute has published a history of its first hundred years. It is an attractive volume.

From its establishment in London in 1879 with 2000 members the institute's development is traced to its present position with a membership of some 110 000 in over 100 countries. It is one of the largest professional associations in the business world.

The survey looks at the institute's history, covering the major events in the financial and banking world that took place during this period and portraying the personalities involved.

Modern banking is said to date from the mid-nineteenth century, when the needs for a professional body and professional qualifications were first recognised.

The book deals with many aspects of the profession, including staffing and education, and examines its growth and influence on modern banking until the present day. The illustrations are a notable feature of the book, with many contemporary drawings and photographs.

Debtors to their profession: a history of the Institute of Bankers, 1879–1979, by Edwin Green. Published for the Institute of Bankers by Methuen, 1979. xxi, 245 pages. £7.50. (ISBN 0 416 72290 3).

Finding out about marine technology

Arnold Myers, information officer at the Institute of Offshore Engineering, has produced a revised edition of his useful guide to information services in the field of marine technology. With the growth of importance of North Sea exploration, there is an increasing demand for this type of information, and an up-to-date guide to sources should prove most helpful.

The latest edition includes over 100 organisations, both UK and overseas, covering governmental, academic, research and industrial bodies which are active in this area. There are full details about how to contact them, who to contact in the first instance and the type of subject covered. There is also an expanded feature on bibliographic sources, including details of relevant computerised data bases available for on-line information retrieval.

Guide to information services in marine technology, by A. Myers. 3rd edtion. Institute of Offshore Engineering, Heriot-Watt University, Chambers Street, Edinburgh EH1 1NX. 1979. 136 pages; spiral bound £3.00. (post free). (ISBN 0 909046 06 0).

Technology news

Post Office announces packet-switched data tariff

Tariffs for the permanent public packet-switched data service (PSS) have been announced by the Post Office. Charges for data calls on PSS are independent of distance – a principle of charging never previously used in the UK for a standard inland telecommunication service. It means that data transfer will be charged solely on the customer's use of the service, irrespective of the distance involved.

PSS is due to come into operation early next year. It is a public data-transmission service in which data are sent as a series of separate blocks or packets. Each packet is routed automatically through the network according to control information given at the start, while additional digits at the end of each packet enable the transmission to be checked for errors. A packet contains a data section, or field, with a capacity of 128 octets (8-bit bytes). The transfer of a given message may involve one or more packets.

For computer users, packet switching has the advantages of providing a flexible and reliable way of linking different computers and terminals; allowing terminals working at different speeds to communicate with each other; allowing packets to be re-routed along a different path through the network to avoid congestion or a fault; and enabling a large number of separate terminals to link up to a computer over a single high-capacity 'highway' into the machine, reducing access costs.

Based on CCITT recommendations adopted or proposed as the international standards for public packet-switched services, PSS will also give UK users access to international data links using this form of switching. It will be connected to IPSS – the international packet-switched service, whose first link, with the United States, was recently inaugurated – and to Euronet, the EEC's database access network due to come into operation later this year.

At the start PSS will be based on nine packet-switching exchanges, to be sited in London, Birmingham, Bristol, Cambridge, Edinburgh, Glasgow, Leeds, Manchester and Reading. These will be interconnected by data circuits operating at 48 kbit/s. This initial network will be expanded as necessary to meet further growth.

The switches for PSS are to be supplied by Plessey Controls Ltd. Under the contract, the firm will supply and instal the equipment during the year to permit the first customers to be connected by next March.

PSS will enable users to operate with either character or packet terminals. For character working, it will support a wide range of asynchronous terminals generating serial data at the commonly-accepted transmission rates up to 1200 bit/s.

Character terminals will link to PSS by means of a dedicated connection known as a Dataline, or use the Post Office Datel 200 or 600 services over the public telephone network. There will be two Datalines for character terminals, operating at up to 300 or 1200 bit/s.

Packet terminals, which assemble data into packets before transmission and accept data in packet form, will link with the network only over a Dataline. Four types are available for packet terminals, operating synchronously at 2.4, 4.8, 9.6 and 48 kbit/s. Full duplex communication is available, with data being transmitted each way simultaneously.

Key 515 for printing

Prestel will be available to the public this summer and Pira (the research association for the paper and board, printing and packaging industries) is evaluating the potential of this service for providing technical information for the printing industry. Pira expects that a Prestel data base for the industry will be developed based on the results of its evaluation. A pilot database on printing is available on Prestel key 515.

Most managers have had the experience of needing to know the specification for a product, how to make a process work, and what equipment is available to do a job and who supplies it. They have also had the experience of not being able to find the information as quickly and easily as they would like. The Post Office Prestel viewdata system would enable them to search a database via a terminal located in their own office.

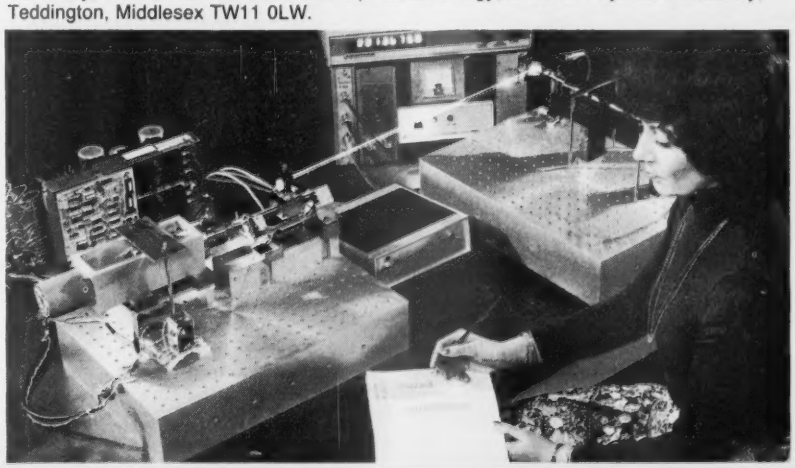
Prestel links a television set via a telephone line to a computer which holds an array of regularly up-dated information. The pilot database on printing gives access to information culled from a number of Pira reports, including such topics as: a guide for the selection of transparencies for colour reproduction, guidelines for colour viewing, a case study of possible new equipment for a modernised composing room, recommendations for the environment for visual display terminals, details of equipment to overcome a production problem and who supplies it, book-binding developments, an evaluation of ink jet printing and its applications.

A number of leading printing companies are helping Pira with the Prestel evaluation, both by giving advice on the content and structure of the 515 database, and by acting as guinea pigs to test its practical value. These companies cover a wide spectrum of the printing industry: there are small, medium and large firms who produce a variety of products including newspapers, books and colour work. Equipment suppliers are also represented.

Pira is also one of the first of Prestel's infor-

Metrological summer schools to be held at NPL

This interferometer for calibrating precision lead screws was designed at the Department of Industry's National Physical Laboratory. Sound metrology and proven measurement techniques in industrial standards laboratories are a key factor in quality control. To assist manufacturing industries further in this task, NPL is planning to hold summer schools in metrology, intended for staff in industrial standards laboratories. The aim of this programme is to provide critical reviews of both traditional and modern measurement techniques with a view to improving inspection and quality control. The first summer school will be held at NPL from 24 to 28 September. The topics covered will include length, interferometry, straightness and flatness, angle, alignment, multi-axis measurement, and errors and uncertainties in measurement. Further information is available from Miss S. Lindberg, Summer School Secretary, Division of Mechanical and Optical Metrology, National Physical Laboratory, Teddington, Middlesex TW11 0LW.



British Aerospace computer for Intelsat

Pairs of circuit boards are housed in a module frame which can be stacked one on top of another. These are part of a microprocessor-based satellite computer completed by British Aerospace Dynamics Group at Bristol for the International Telecommunications Satellite Organisation (Intelsat), Washington. Its small size and low power characteristics will enable it to be used as a time-shared general purpose computer. It operates on less than 1 watt and has an up to 64k, 12-bit word memory.

mation providers to adapt an illustrated programmed text for presentation on the Prestel public service. It has been successfully producing programmed instruction for the printing industry for many years and a self-instruction manual has now been converted for Prestel. It deals with the basics of offset lithography, a subject of interest not only to the majority of printing companies, but also to their customers and suppliers. Using this Pira material on offset litho, the industry training boards plan to evaluate the effectiveness of Prestel in programmed learning. Companies who are training staff in this area can participate in this evaluation.

Information on Prestel and its applications for the printing industry is available from Jon Maslin, Pira, Randalls Road, Leatherhead, Surrey KT22 7RU, tel. Leatherhead 76161.

Testing the quality of fresh concrete as it is mixed

A means of testing fresh concrete for quality and consistency as it is produced from the mixing plant is being investigated at the Harwell laboratory of the UK Atomic Energy Authority. By knowing that the material is right before it is actually cast, the ultimate quality of structures using vast amounts of concrete can be far more readily guaranteed.

With a £16,000 research grant from the Building Research Establishment, staff in the Nondestructive Testing Centre at Harwell are working on a method which combines ultrasonic and gamma radiometric measurements to give a more precise measurement of composition than either of these methods on their own.

It has already been shown that this method can be used to calculate the strength of hardened concrete with greater accuracy than was possible before. Now it is hoped to extend this work to fresh concrete. Ultimately it might be possible to produce a means of rapidly testing fresh unhardened mixes either in batch form or on a continuous production line and so obtain an immediate assessment of quality and strength.

This work is being carried out in collaboration with the Cement and Concrete Association and under the guidance of the Building Research Establishment. An initial study, which involved the analysis of a small number of specimens of hardened cement, was funded by the Department of Industry and subsequently discussed in detail with construction industry representatives. These discussions showed that the work would have much greater commercial importance if it could be directed at unhardened concrete.

NCB grasps microprocessor potential

Prospects offered by the microprocessor and mini-computer for increasing the reliability and consistency of coal production are being eagerly grasped by the National Coal Board. Several microprocessor application projects have reached the stage of practical installation at collieries, and some 19 or more are underway at the board's Mining Research and Development Establishment at Bretby, near Burton-on-Trent.

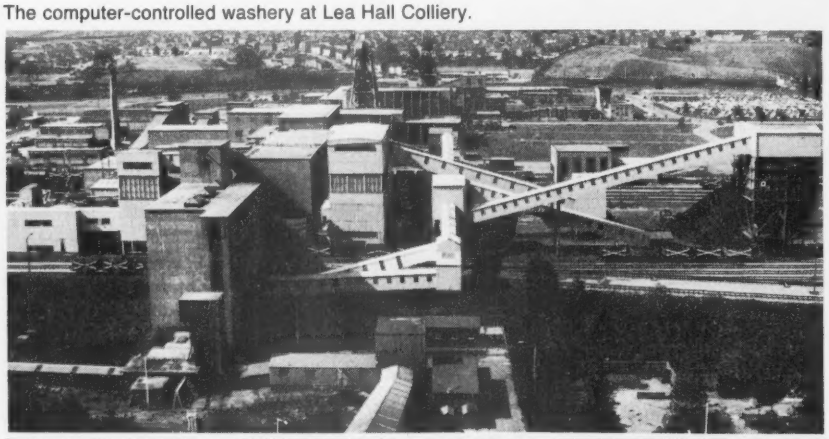
Microprocessors are being applied in the control of coal preparation plants and underground conveyors, and in providing environmental and productivity information for management. All the applications are characterised by the many and complex variables that have to be monitored, a task well suited to the compact, reliable and low-cost microprocessor.

In 1977 the first microprocessor control was installed at the 350 tons per hour coal preparation plant at Rawdon Colliery near Moira, Derbyshire. This washery was chosen because it is relatively small, and is simple, orderly and compact. The electronic control, installed by Bristol Automation Ltd, starts or stops the 50 or so units concerned in the correct sequence. The units are conveyors, screens, crushers, pumps, valves, and last but not least the Baum washbox.

To achieve automatic operation, each unit must be fitted with a reliable sensor that sends back a message to the microprocessor to indicate that it is healthy. When any sensor indicates a fault on the unit it scans, the microprocessor automatically shuts down all preceding units and prints out a log of the fault, giving date, time of day and the cause of the fault.

The washery at Lea Hall, Colliery, Rugeley, is a much larger one than Rawdon, with a throughput of 1000 tonnes of clean coal per hour, so it was a major effort from any point of view to install automatic control. Kent Automation Systems, a member of the George Kent group, installed one of its K90 computer systems there at the end of 1978. This is expected to be working next year. The Lea

The computer-controlled washery at Lea Hall Colliery.



Saving energy in refractories industry

A one-day seminar on 'Energy saving in the heavy clay and refractories industries' will be held at Sheffield City Polytechnic on 13 June. It is one of a series being organised as part of the Department of Industry's campaign to encourage the better use of energy in manufacturing industry.

The seminar is being held to inform industry of the latest developments and to provide an opportunity to exchange experiences in an area of ever increasing importance. It will be of interest to energy managers, production managers and senior technical engineers together with equipment manufacturers and trade associations.

The fee (including refreshments) will be £20 including VAT. Details of the programme and application forms are available from Mr R. D. Thornton, British Ceramic Research Association, Queens Road, Penkhull, Stoke-on-Trent ST4 7LQ, tel. Stoke-on-Trent 45431.

Hall plant resulted from an EEC-supported project on coal preparation plant monitoring and control which is intended to create a pilot plant for future UK and continental European coal washeries. The purpose of the project is to increase overall washery efficiency by better reliability, quality control and percentage utilisation. Reliability improvements are achieved early in this work because a sensor has to be installed first, to indicate whether or not its unit is in healthy working order.

Unlike Rawdon, Lea Hall has mainly dense medium separators, for coal cleaning, not a Baum washbox. The dense-medium liquids circuits and their associated water clarification plant and thickeners are process units that need close control for their efficient operation. The washery has 200 units that are electrically controlled, some 300 valves and 30 pumps. The computer system will continuously monitor some 200 plant units and 20 continuous control loops and provide printouts for management, summarizing production and performance every shift, or every week or month. Plant stoppage reports are also available.

There will be coloured monitor displays using mimic style presentation to enhance communication between system and operator showing him which units are 'healthy' and which are faulty. The main advantage of the display unit is on starting-up the plant when it provides a refreshed display of current states. A second visual display unit in black and white shows plant status and prompts the operator to suitable action.

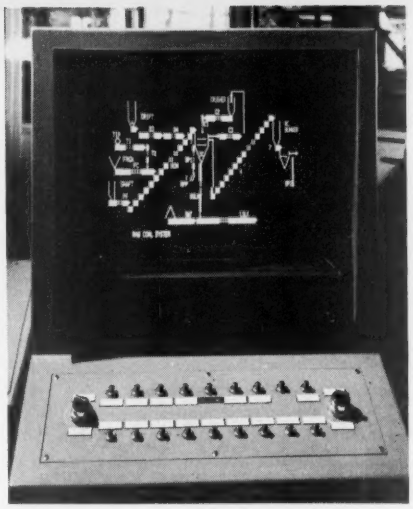
The bulk of the measuring sensors needed for complete monitoring and control of the units have already been installed at Lea Hall. They include nucleonically controlled coal density gauges for ash estimation, detectors for liquid flow and level, bunker level gauges, high-accuracy belt weighers, belt speed sensors and door position sensors, and should shortly be linked to the computer.

What is claimed to be the most advanced coal preparation plant in Britain was inaugurated on 22 March at East Side, South Kirkby, near Barnsley. This £18 million plant has three computers to regulate its work: one controls the coal preparation mechanisms; a second stores data to provide management with information and records; and a third computer harmonizes the reception, loading and despatch of merry-go-round trains that run between the plant and the power station it supplies. The new plant is to treat the output from three collieries, which is planned to reach 2 million tonnes a year by 1981.

Environmental monitoring

Environmental monitoring is certain to become more important because it is partly concerned with the physical comfort of miners. As mines get deeper, they also get more uncomfortable, hotter and more humid. Consequently as time goes on it may be more difficult to find men willing to work underground, and improvement of the underground environment becomes increasingly necessary. Apart from the physical comfort of the men, the mine ventilation system is vitally concerned with safety through the removal of harmful mine gases.

This monitoring is mainly concerned with measuring the variables of mine ventilation, the air temperature, relative humidity, contents of methane, carbon monoxide, oxygen and carbon dioxide as well as the air quantity flowing and the air speed at particular sampling points underground.



One of the four colour mimic visual displays at the Rawdon Colliery computer-controlled washery. Raw coal from sources on the left is fed onto the diagonal run of mine conveyor which takes it to the screens and crusher (centre). From there the coal is carried by a second conveyor to the raw coal bunker, while the 'slack' is fed onto conveyors at the bottom of the diagram. Key positions on the diagram are green when the plant is running correctly but change to red when a fault occurs.

One successful installation for monitoring the environment also used tube bundles for sampling the gases. Methane is measured by local instruments, which are thus checked by instruments connected to the tube bundles. Tube bundles consist of small tubes of about 4 mm bore by which continuous gas samples are sucked up to the surface analysis room by vacuum pump. At this colliery the time taken for the sample to travel to the surface analysis room from the sampling point varies from 157 to 22 minutes, since the tube lengths can reach several kilometres.

At each sampling point the six main underground sensors in this colliery – one of the first complete environmental monitoring installations – were for: air flow measurement; methane in the general body of the air; smoke detection; the rate of flow of gas and the percentage purity in methane drainage pipes; and the suction pressure. The sensor readings in this installation have clearly shown when air doors are being left open and the ventilation current lost because it is being short-circuited. They also show, by the increase in the methane content of the air, when the cutter-loader is working.

A rather different way of improving the mining environment, on the coalface, is now being tested at Baddesley Colliery, Warwickshire. The main unit that cuts and loads the coal in the coalface is the shearer. Ordinarily it has to be steered by its driver but at Baddesley there is a microprocessor connected to sensors on the shearer that indicate whether it is too far up or too far down in the seam, whether it is overheating and so on.

If this microprocessor works well, it may greatly improve the comfort of the shearer driver at work. He will no longer need to be located at the head of the machine in a spray of dust and water but will be able to stay in the rear, relying on the microprocessor and its sensors.

Productivity

Microprocessors are helping to solve a general problem of mining productivity – output per manshift. The best coalfaces have an average production of some 7000 tonnes per day, resulting in profitable operation. This figure is a high one but it has barely altered the average performance of the industry.

The general solution to productivity falls into three related parts: the reliability of components, of machines and of systems; the measurement of the variables needed for control purposes and the development of reliable sensors; and the automatic control of the system. Put together, these three elements are called 'systems engineering'. In the 1960s the Anderton shearer loader greatly improved output per manshift but at present there is no one machine or unit that could bring about a similar improvement.

Underground conveyors for coal, although apparently simple, can be fairly complicated to control automatically. A transfer point from one belt to another may have 25 sensors attached to it, to measure such variables as temperatures of air and of conveyor bearings, whether belts are torn, whether coal is being split, and whether the air flow is gassy. This information is sent up to a control room on the surface where a man operates the system from a distance.

If the system works well with this remote manual control, it is sometimes possible to introduce computer control which is automatic, the computer having a memory. The memory enables it to tell the manager things which he may not have known or may have forgotten. Automatic control by the computer seems outwardly to be the one factor that produces the improvememt, but in reality the change is brought about also through improved reliability and the existence of the sensors measuring the variables underground.

These computer-based coal clearance systems increase the running times of the conveyors but they also save labour and they sometimes enable men to be upgraded by eliminating some of the conveyor patrolmen. Coal spillage is reduced and bearing failures can be anticipated, thus avoiding breakdowns and resulting production losses. At one colliery each automatic start-up took 11 seconds, while manual start-ups took at least 34 seconds each. So they are now being widely adopted.

Automatic control, when it is successful, achieves five main objectives: productive, safe employment; reliability; the presence of a complete communication system; truthful diagnostic; and control information.

Ultimately these computer systems will communicate with each other to form a co-ordinated information system, and this work is already well under way with Minos, the NCB's mine operating system. Minos, as the name suggests, has been specially designed for use at any coal mine, and for adaption as the colliery changes. Eight collieries out of the 223 now winding coal have their coal conveyors automatically controlled by Minos, and four others with different automatic control systems are having them converted to Minos. Ventilation is being monitored by Minos at three others.

New products

Freepost reader service

For further information on items in this section, circle the corresponding number on the reader services page near the end of the magazine.

Ageing tractor units converted for depot shunting

A conversion kit now available enables an old articulated tractor to be used as a depot shunting vehicle and to perform the same duties as an expensive purpose-built tug. Lyka Cranes Ltd states that the Shuntlift can halve shunting times in depots struggling with conventional tractors to perform these duties, and that the tipper-style conversion is smoother in operation and requires less maintenance than parallel-link designs.

The equipment enables a driver to back a tractor under a parked semi-trailer and then lift its front hydraulically, controlling all movements from the cab. There is no need for the trailer's support legs to be raised or lowered. An air-operated release mechanism, also controlled from the tractor cab, is fitted to the jaws of the fifth wheel which locks tractor and trailer together. There is, therefore, no need for the driver to dismount from the vehicle cab to uncouple the trailer. Only air-brake lines have to be connected manually.

Working on the same lines as front-end tipping gear, the unit has a lifting capacity of more than 25 tonnes and can raise trailer legs 230 to 330 mm off the ground. The fifth wheel, which has an air chamber and push-rod for jaw release, is on a sub-frame hinged to the tail of the tractor chassis and is raised by two front-end hydraulic rams that straddle the propeller shaft. Lead-on ramps are incorporated in the tipping sub-frame so that coupling is easy even if the driver does not raise the fifth wheel to quite the correct height.

The ramps permit coupling under trailer front ends lying as little as 990 mm above the ground, enabling the conversion to move a wide range of semi-trailers from urban units on 405-mm diameter wheels to large container carriers and tankers.

Further information: circle 403

Compact flaw detector withstands rough treatment

A compact ultrasonic flaw detector is believed by its developers, Baugh and Weedon Ltd, to be the smallest and lightest portable unit of its kind, yet to match in performance much larger and more expensive equipment. Although the PA1011 Mini Compact is only 130 mm high × 180 mm wide × 290 mm deep and weighs 4.5 kg, it is sufficiently sturdy to withstand rough on-site treatment. All working parts are housed in an impact-resistant plastics case on a strong metal frame.

The instrument can detect flaws in steel components and structures ranging from under 10 mm to approximately 7 m in depth. Tests can be carried out with a single probe, double probe or separate transmission and receiving probes at operating frequencies from 0.5 MHz to 15 MHz. High screen brightness and good accessibility of controls help to make the instrument easy to operate.

Input attenuation can be varied in 2-dB steps from zero to 80 dB for accurate measurements of changes in signal amplitude, and an uncalibrated gain control permits fine adjustment during calibration. Time base delay can be varied up to 100 microseconds (equivalent to 300 mm in steel) and suppression is continuously variable up to the equivalent of signals at twice full screen height. Operation is from an internal rechargeable battery with sufficient capacity for a normal working shift.

A monitor gate facility is provided on a companion instrument, the PA1011M. Gate width is continuously variable between 3 microseconds and 70 microseconds, and gate position up to about 170 microseconds; location and duration are displayed as a pedestal on the cathode ray tube timebase. An indicator lamp warns when signals exceed an adjustable sensitivity threshold. There is a plug-in provision for an external alarm or recorder.

Further information: circle 404

Integrated circuit timers at no extra cost

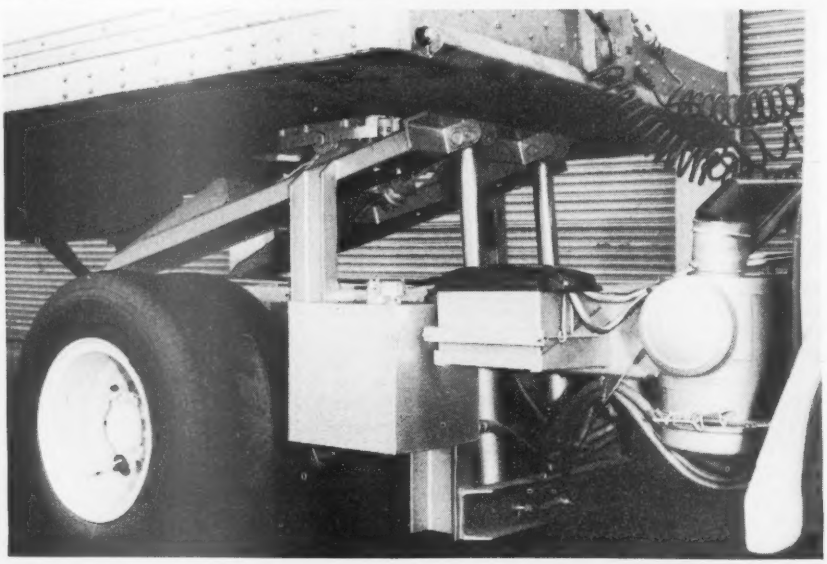
By changing all its electronic timer designs so that they are based on CMOS logic, Tempatron Ltd has made available state-of-the-art electronic timers at no extra cost to its previous models. All the new models incorporate Motorola CMOS integrated circuitry – a well established and fully proven technology that replaces Tempatron's previously used discrete programmable unijunction transistor circuitry.

The advantages of using CMOS in timers lie not only in the extra performance that can be obtained from them. Just as significant is the high noise immunity of the circuits – a very important factor when one considers the kinds of industrial and other environments in which they are likely to be used. Because the new circuit designs are digital and based on pulse counting techniques, there is less likelihood of the odd spurious pulse affecting the timing accuracy – since it will only be one in thousands or even tens of thousands. CMOS also has the advantage of being a very low power consumer, thus making less demands on the supply.

All the new Tempatron timers also include transient suppression and feature as standard many facilities that previously were options. Every standard mode of operation is offered: delay on energise, delay on de-energise, interval, immediate and delayed cycling and true delay on de-energise. The timing controls may be integral, remote or factory preset. For practical purposes standard timing ranges up to only 60 hours duration are available – from a choice of over 8000 models. Timers for any longer period will be made to special order.

Further information: circle 405

Urban units to large container carriers and tankers can be handled.



European community news

Interim measures on fisheries adopted

Further interim measures to conserve and manage fisheries resources and other related matters are to run from 1 April to no later than 30 June. The council of ministers decided on these measures at the 9 April environment council pending the adoption of definitive community measures which it hopes to reach as soon as possible. Ministers previously had adopted interim measures which ran from 1 January to 31 March.

Under the new measures member states will carry on their fishing activities so that the catches made by their vessels during this period take account of the total allowable catches (TAC) submitted by the commission to the council on 23 November 1978 and 16 February this year, and of the part of the TAC allocated to third countries under the agreements and arrangements concluded with those countries by the community. These catches will be charged against the quantities which the council finally decides to allocate for 1979.

On technical measures for the conservation and supervision of fisheries resources, the measures mean that member states should apply the same measures they applied on 3 November 1976, together with other measures taken in accordance with the procedures and the criteria of annex VI to the 3 November council resolution.

Potato import ban lifted

Potatoes can now be imported into the UK as a result of a High Court declaration on 9 April. This followed the judgement given by the European Court of Justice on 29 March in two cases against the UK government which alleged that the UK had failed to fulfil an obligations under the EEC treaties by not repealing or amending before the end of 1977 the provisions of its national law which was restricting potato imports.

Imports will continue, however, to be subject to the existing plant health regulations, which are unaffected by this change.

Urgent consideration is being given to the support arrangements for the 1979 potato crop. Meanwhile the government is to continue to press for a satisfactory outcome to negotiations on the EEC proposals for the potato market.

The import ban, which applied to maincrop potatoes throughout the year and to new potatoes in September and October, had been in operation continuously since 7 August 1977 and its continuation beyond the end of the UK's period of transition to full EEC membership was announced on 28 December 1977.

The import controls had been operated by the Import Licensing Branch of the Department of Trade using the department's powers derived from the Import, Export and Customs Powers (Defence) Act 1939. The removal of controls was brought about by the Department of Trade issuing an amendment to the Open General Import Licence. The amendment was issued on Monday, 9 April and took effect from midnight of that day.

So far as seed potatoes are concerned, current plant health restrictions permit only the entry of Netherlands seed potatoes under licence into non-high-grade seed regions in England and Wales.

Applications invited for fishing aid

Applications may now be made for aid from the European Agricultural Guidance and Guarantee Fund (Feoga) under EEC regulation 592/79 which extends the interim common measure (regulation 1852/78) for restructuring the inshore fishing industry.

The new regulation provides for a limited amount of money (15 million European units of account) to be paid in the form of grants towards the cost of investment projects intended both to develop inshore fishing in regions where the fishing potential makes this possible and to develop marine fish farming in regions particularly suited to this activity. The measure will not extend beyond 31 December.

Regulation 592/79 requires applications to be submitted to the European commission before 1 July and the commission is obliged to take decisions by 31 March 1980. In order that applications may be considered for approval by the UK government and transmitted by the commission's closing date, applications should be received at the appropriate fisheries departments by 1 June. Applications received after that date will not be eligible for transmission.

Further information is available from the Ministry of Agriculture, Fisheries and Food, Room 270 Hoseferry Road, London, SW1P 2AE, where completed application forms should be sent. Telephone inquiries on fishing assets should be made to 01-216 6143 and in the case of aquaculture investment to 01-216 6097.

Applicants in Wales should contact Welsh Office Agriculture Department, Room 3, Pearl Assurance House, Greyfriars Road, Cardiff, tel. 022-44151 ext. 372.

Applicants in Scotland should contact the Department of Agriculture and Fisheries for Scotland, Chesser House, 500 Gorgie Road, Edinburgh, EH11 3AW, tel. 031-433 4020 ext. 2159/2160.

Applicants in Northern Ireland should contact Fisheries Division, Department of Agriculture for Northern Ireland, Hut 5, Castle Buildings, Stormont, Belfast, tel. 63939.

Successful applicants

Two UK applicants have won grants from the European commission to construct a fishing vessel each. The awards for the projects were made under regulation 1852/78. The two applicants are both from Northern Ireland. One award is for £71,294, and the other for £109,048. Both fishing vessels will be constructed at Portavogie, County Down. Applications which were unsuccessfull because of lack of funds may be considered again by the commission for a grant, either under regulation 17/64 or the extended regulation 592/79.

European chambers of commerce workshop

European chambers of commerce are to run an EEC workshop in London on 6 June. Their aim is to make a co-ordinated contribution to the widening of trading links between their countries and the UK.

The workshop should appeal to British businessmen who seek suppliers in EEC countries or new outlets for their products in these countries, the chambers feel.

Those wishing for an interview should write

More community news

Information on European community matters and about member states can often be found in other sections of *Trade and Industry*. For this week's additional news, turn to the following pages:

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to the German Chamber of Industry and Commerce, 12/13 Suffold Street, London SW1, requesting a form and saying which country representatives they wish to see. The price for participation is £5.00 plus 40p VAT and this amount should be remitted with the written request. Participants will receive a questionnaire for each interview which should be completed and returned so that some preliminary work can be done before the actual interview. Interviews will be allocated at approximately half-hour intervals from 09.00-13.00 and 14.00-16.30 hours.

EEC indicative ceilings for imports from Efta

Community imports of the following goods have reached 75 per cent or more of the indicative ceiling level for 1979 (see *Trade and Industry*, 2 March).

Order no.	Country of origin	CCT heading/Description
		ex 48.07 C
IA5	Austria	Other coated paper and paperboard
		61.02
IP9	Portugal	Women's, girl's and infant's outergarments
		73.02 E
IS15	Sweden	Ferro-chromium and ferro-silico-chromium

In addition, community imports of the following goods have exceeded the indicative ceiling level for 1979.

Order no.	Country of origin	CCT heading/Description
		81.04 KII
IS21	Sweden	Other titanium

New legislation

The legislation listed below has been published in the *Official Journal of the European Communities* as indicated against each item. The *Official Journal* is published in English and copies should be obtained from HMSO. Information about the items listed, in so far as other member states' requirements are concerned, is available to British exporters from Department of Trade, Export Services and Promotions Divisions, Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757 ext. 7174/482/408.

Common agricultural policy

The texts of the following regulations, directives and decisions which affect the various agricultural sectors in the EEC have been published in the *Official Journal of the European Communities*.

Cattle, beef and veal. Regulation (EEC) 631/79 fixing the amounts by which import charges on beef and veal originating in the African, Caribbean and Pacific States are to be reduced (*Official Journal* L79, 31 March 1979).
Regulation (EEC) 639/79 extending the 1978/79 marketing year for beef and veal to 1 July 1979: the 1979/80 marketing year shall commence on 2 July 1979 (*Official Journal* L82, 31 March 1979).

Milk and milk products. Regulation (EEC) 632/79 amending regulation (EEC) 685/69 on detailed rules of application for intervention on the market in butter and cream (*Official Journal* L79, 31 March 1979).
Regulation (EEC) 633/79 amending article 1 of regulation (EEC) 303/77 on the supply of certain milk products as food aid (*Official Journal* L79, 31 March 1979).

Oils, fats and oilseeds. Regulation (EEC) 634/79 derogating from regulations (EEC) 3135/78 and (EEC) 3136/78 on import levies on products of the olive oil sector (*Official Journal* L79, 31 March 1979).

Poultry and poultrymeat. Regulation (EEC) 641/79 amending regulation (EEC) 2967/76 laying down common standards for the water content of frozen and deep-frozen chickens, hens and cocks (*Official Journal* L82, 31 March 1979).

Animal feedstuffs. Regulation (EEC) 642/79 fixing the flat-rate production aid and the guide price for certain dried fodder products for the period 1 April to 30 June 1979 (*Official Journal* L82, 31 March 1979).

Fruit and vegetables. Regulation (EEC) 647/79 applying quality class III to certain lemons, table grapes, cherries and strawberries for the 1979/80 marketing year (*Official Journal* L83, 3 April 1979).
Regulation (EEC) 687/79 laying down protective measures in respect of imports of dessert apples from countries in the southern hemisphere originating in Chile (*Official Journal* L86, 6 April 1979).

Seeds, plants and propagating material. Decision 79/347/EEC authorising Germany to restrict the marketing of seed of certain varieties of fodder plants (*Official Journal* L84, 4 April 1979).
Decision 79/348/EEC authorising France to restrict the marketing of seed of certain varieties of fodder plants (*Official Journal* L84, 4 April 1979).

Seeds and plants. Decision 79/355/EEC exempting Denmark from applying to certain species directive 70/458/EEC on the marketing of vegetable seed (*Official Journal* L84, 4 April 1979).
Decision 79/356/EEC authorising France to permit temporarily the marketing of certain sunflower seed not complying with the requirements of directive 69/208/EEC (*Official Journal* L84, 4 April 1979).
Decision 79/357/EEC authorising Germany to permit temporarily the marketing of certain field bean seed and lupin seed not complying with the requirements of directive 66/401/EEC (*Official Journal* L84, 4 April 1979). The *Official Journal* L91, 10 April 1979, contains the following correction to article 2, line 3 of this decision: for 4500 tonnes, read 500 tonnes.
Decision 79/358/EEC authorising Belgium to permit temporarily the marketing of certain spring wheat seed not complying with the requirements of directive 66/402/EEC (*Official Journal* L84, 4 April 1979).
Corrigenda. The *Official Journal* C84, 31 March 1979, contains the following correction to the common catalogue of varieties of vegetable species – fifth complete edition published in the *Official Journal of the European Communities* C54, 28 February 1979:
Page 175, column 1: for Captan, read Capitan.

Wine. Regulation (EEC) 657/79 laying down supplementary measures to adjust wine-growing potential to market requirements in certain community regions (*Official Journal* L85, 5 April 1979).
Regulation (EEC) 700/79 amending regulation (EEC) 130/79 on the granting of aid for concentrated grape must used in wine-making during the 1978-79 wine year (*Official Journal* L87, 7 April 1979).

Hops. Regulation (EEC) 672/79 extending certain time limits for the certification of hops (*Official Journal* L85, 5 April 1979).
Regulation (EEC) 673/79 amending the annex to regulation (EEC) 3077/78 on the equivalence with community certificates of attestations accompanying hops imported from non-member countries (*Official Journal* L85, 5 April 1979).

Feedstuffs. Directive 79/372/EEC amending directive 77/101/EEC on the marketing of straight feedstuffs (*Official Journal* L86, 6 April 1979).
Directive 79/373/EEC on the marketing of compound feedstuffs (*Official Journal* L86, 6 April 1979).

Animal health. Corrigenda. The *Official Journal* L91, 10 April 1979, contains the following correction to decision 79/238/EEC concerning animal health conditions and veterinary certification for imports of fresh meat from Paraguay (published in the *Official Journal* L53, 3 March 1979).
Page 35, annex A (III): for 'Country and place of loading', read 'Country and place of destination'.
Page 36, annex A (IV) (I), fourth indent: for '. . . in a means of transport, the latter . . .' read '. . . in a means of transport, that the latter . . .'.
Page 36, annex A (IV) (2): for '. . . for export to the European Community . . .', read '. . . for export to the Community . . .'.
Page 36, annex A, Footnote (¹): for '(¹) "Fresh meat" means . . .', read '(¹) Fresh meat means . . .'.
Page 38, annex B, footnote (¹): for '(¹) "Fresh meat" means . . .', read '(¹) Fresh meat means . . .'.
Page 39, annex C (1): for 'Number of packaging', read 'Number of packages'.

Common customs tariff. Regulation (EEC) 684/79 amending regulation (EEC) 950/68 on the common customs tariff as regards the nomenclature of hybrid maize intended for sowing (*Official Journal* L86, 6 April 1979).

New EEC documents

This list of EEC documents was deposited in the House of Commons in the seven days to 12 April (commission reference numbers, where appropriate, are given in parentheses). The documents are available for consultation at the European Communities Information Office at 20 Kensington Palace Gardens, London W8 4QQ.

EEC draft instruments

5331/79. Proposal for a council decision for a research and development programme for the European Atomic Energy Community on the plutonium cycle and its safety (COM(79)87).
5419/79. Proposal for a council regulation amending regulation (EEC) 2133/78 imposing a definitive anti-dumping duty on kraft liner paper and board originating in the United States of America. (COM(79)82).
5678/79. Proposal for a council regulation (EEC) laying down for the period 1 January to 31 December 1979 certain measures for the conservation and management of fishery resources applicable to vessels flying the flag of Spain. (COM(79)149).
5711/79. Proposal for a council decision adopting a multi-annual research programme to be implemented by the Joint Research Centre for Euratom and the EEC (1980–83). (COM(79)121).
5715/79. Proposal for a council regulation opening allocating and providing for the administration of community tariff quotas for certain wines having a registered designation of origin, falling within subheading ex 22.05 C of the common customs tariff, originating in Algeria (1979–80) (COM(79)110).
5721/79. Proposal for a council regulation on the measures to be taken in the event of irregularaties affecting the own resources referred to in the decision of 21 April 1970 and the organisation of an information system for the commission in this field. (COM(79)111).
5725/79. Proposal for a council regulation (EEC) on investment aid at the marketing and processing stage of milk products. (COM(79)157).
5745/79. Proposal for a council regulation drawing up the list of regions in which production aid for hops is granted only to recognised producer associations. (COM(79)152).
5763/79. Proposal for a council regulation (EEC) fixing a carry-over payment for common wheat, rye and maize remaining in stock at the end of the 1978–79 marketing year. (COM(79)137).
5805/79. Proposal for a council directive amending for the second time the annex to directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the member states relating to restrictions on the marketing and use of certain dangerous substances and preparations. (COM(79)123).
5881/79. Proposals for council regulations: amending regulation (EEC) 1418/76 on the common organisation of the market in rice; amending regulations (EEC) 2742/75 on producting refunds in the cereals and rice sector; amending regulation (EEC) 2727/75 on the common organisation of the market in cereals. (COM(79)163).
5620/79. Relations with the ACP states: proposal for a council regulation concerning the import arrangements for ACP rum (1979–80). (COM(79)139).
5794/79. Amendment of the proposal for a council decision adopting a research and training programme (1979–83) for the European Atomic Energy Community in the field of controlled thermonuclear fusion. (COM(79)160).
5871/79. Proposal for a council regulation (EEC) amending regulation (EEC) 2967/76 laying down common standards for the water content of frozen and deep-frozen chickens, hens and cocks. (COM(79)162).
5877/79. Amendment to the amended proposal for a council regulation on technical measures for the conservation of fishery resources. (COM(79)164).
5886/79. Alteration of the proposal for a council directive on the approximation of the laws of the member states concerning the protection of employees in the event of the insolvency of their employer. (COM(79)131).
5966/79. Relations with the OCT: Proposal for a council regulation concerning the import arrangements for OCT rum (1979–80). (COM(79)145).

Consultative documents

5379/79. Commission communication to the council on the progress of the support given to uranium exploration projects in the community pursuant to article 70(1) of the Euratom Treaty (Regulation (Euratom) no 2014/76). (COM(79)90).
5741/79. Third communication concerning the programme for the use of co-responsibility levy funds in the milk sector. (COM(79)113).
5753/79. Proposal for the transfer of appropriations from chapter to chapter within the budget estimates of the commission for the financial year 1978 (EAGGF guarantee section). (COM(79)136).
5754/79. Proposal for a transfer of appropriations within the commission's budget estimates for the 1979 financial year. (COM(79)151).

Need to know more about the EEC? Ring the EEC Information Unit on 01-215 4301 (four lines) between 10.00 and 17.00 hrs. The unit provides a free information service for businessmen, answering general questions on the EEC directly or referring callers to specialist advisers.

Overseas trade news

Westminster chamber setting up Anglo-Afrique Group

An Anglo-Afrique Group is being set up by the City of Westminster Chamber of Commerce in a strong attempt to open up the French-speaking countries of west Africa to British exporters.

The plan is for the Anglo-Afrique Group to operate as in interim measure within the Westminster chamber before the formation of a separate Anglo-Afrique chamber of commerce.

A survey of members and others interested has brought strong support, and a trade mission, sponsored by the chamber and with Department of Trade support, has already been arranged for later this year.

Robert Stevens, chairman of the Westminster chamber's international section, said inquiries have brought ample evidence showing that many of the countries concerned are keen to strengthen trade links with the UK.

Traditionally, most of the countries have been tied closely to France, not only in language but in trade regulations. 'But increasingly, the area is seeking trading partners outside the French influence', Mr Stevens said.

This was borne out by a recent visit to Westminster by the president of the Dakar, Senegal, Chamber of Commerce.

Although the geographical limits are not finalised, the Anglo-Afrique Group will be concerned with Ivory Coast, Senegal, Cameroon, Gabon, Mali, Niger, Chad, Upper Volta, Central African Empire, Togo, Benin, Guinea and the Congo.

Main requirements from the area include minerals, agri-industry, health and welfare, road building and construction, with emphasis on small- and medium-sized industries, preferably with high labour content. Some countries are also interested in joint ventures.

The Westminster chamber is anxious to hear from any company that might be interested in looking at business in the area.

Korean medal for Geoffrey Nichols

Geoffrey Nichols, chairman of Rotaprint and chairman of the British Overseas Trade Board's Korea trade advisory group (left) after being presented with the Republic of (South) Korea's order of merit of the diplomatic service (the Sungrye medal) by Dr Pyo-Wook Han, the republic's ambassador in London. The medal was awarded to Mr Nichols for his contribution to the furtherance of economic and trade links between the UK and Korea.

Seminar on exporting to south-east Asia

Export opportunities for British companies in south-east Asia will be examined at a half-day seminar arranged by the British Overseas Trade Board's south-east Asia trade advisory group (Seatag) on May 24 at the Centre Airport Hotel, Middlesex. The seminar is one of a series being arranged by Seatag around the country and is the first in south-east England. It is being organised jointly with the South Bucks and East Berks chamber of commerce and industry.

The seminar, 'South-east Asia – your multi-million market', will be chaired by Peter Maclean, president of the South Bucks chamber of commerce. A review of the work of Seatag will be given by its new chairman, Guy Checketts, deputy chairman and managing director, Hawker Siddeley International. Murray Simons, a Seatag member and head of the south-east Asia department, Foreign and Commonwealth Office, will analyse the regional political situation.

The Seatag audio-visual 'South-east Asia market – market of the future' will be shown, and Dr Bill Pritchard of Halewood Chemicals, Staines, will present a case study on direct exporting to south-east Asia. A case study of overseas investment and local manufacture will be presented by Robin Cotton, a Seatag member and senior executive of Metal Box (Overseas) Ltd, and David Charlesworth, director and general manager of Simon PM Services, will demonstrate how his company established a regional marketing base in south-east Asia. Sir Eric Norris, director of Inchcape and recently British high commissioner, Kuala Lumpur, will speak after lunch.

UK exports to the Asean countries (the association of south-east asian nations – Singapore, Malaysia, Thailand, the Philippines and Indonesia) increased in value by 16 per cent in 1976 and by 19 per cent in both 1977 and 1978.

Companies wishing to attend the seminar, which is free of charge, should contact Mrs Phillips, the South Bucks and East Berks Chamber of Commerce and Industry, 2 Bath Road, Slough SL1 3SB, tel. Slough 33633.

Equipping US armed services gives export opportunities

The United States Defense Logistics Agency (DLA) spends $10 billion each year buying a wide range of general stores and equipment for the United States' armed services. Possibilities for British manufacturers to obtain a share of this budget will be discussed at a half-day conference organised by the British Overseas Trade Board (BOTB) and the Defence Manufacturers' Association (DMA) at the Cafe Royal in London on 12 June.

A feature of the conference will be the presentation and implications of the market research study carried out by Perry International Inc of the export opportunities open to UK firms in the DLA. The study was commissioned by the BOTB and the DMA following the response from British manufacturers at a 'workshop' in early 1978.

The conference, which will be chaired by Lord Garnock, vice-chairman of the BOTB's north American advisory group, will also identify the problems in selling to the DLA and lay the ground rules for a DMA mission to the United States in October 1979.

Other speakers will be Anthony Perry, president, Perry International Inc, Philadelphia; Nigel Paren, director of sales (north America), UK Ministry of Defence; Shane Paul, director of policy and procedures, Defense Industrial Supply Center, Philadelphia; and Lt. Col. Jack Jack, director of marketing, Defence Manufacturers' Association.

Firms wishing to attend the conference should contact Mr H. J. James, British Overseas Trade Board, North American Advisory Group, Room 558, 1 Victoria Street, London SW1, tel. 01-215 5328.

Construction materials course for developing countries

A training course in construction materials is being organised by Laing R&D and is specifically designed for technicians from developing countries.

Previous courses were over 12 weeks but the 1979-80 course has been divided into two separate sections running from 24 September 1979 to 21 December 1979 and from 2 January 1980 to 2 April 1980.

Further information can be obtained from W H. Cowin, John Laing R&D, Manor Way, Boreham Wood, Hertfordshire WD6 1JN, tel. 01-953 6144.

Iraq to buy from fair participants

Iraq's state organisation for capital goods is to fulfil its 1980 import quota for construction materials and hand tools from participants at two exhibitions in May.

The organisations have just opened the exhibitions to any British company rather than those selected for invitation. The construction materials exhibition will be from 12 to 17 May and the hand tools exhibition from 26 to 31 May. There will be no further exhibitions or tenders until 1981.

There are conditions for exhibitors. Three or four representatives should attend with authority to negotiate contracts. Samples, catalogues and details of prices should be provided. Samples should be air-freighted and the state organisation will assist with the clearance of goods.

British companies wishing to exhibit at either of the fairs should immediately telex details of their products to the chairman, State Trade Organisation for Capital Goods, Husam al Din Street, PO Box 5948, telex 2227 A/B Tresto IK, stating the area required, and names and passport numbers of the representatives who will be attending.

The state organisation undertakes to accept or buy all exhibits and other government departments will be invited to the exhibitions. There will be no charge for floor area, only a US$250 participation fee. Hotel reservations can be arranged by the state organisation and the organisers will welcome representatives' wives, for whom outings will be arranged.

Products of specific interests at the fairs are:
Construction materials exhibition: sanitary ware, builders hardware, bathroom accessories, plumber's hardware, wall coverings, ceiling tiles, industrial fasteners, fibreglass products.
Handtools exhibition: water pumps, generators, electric motors, car accessories, hand and bench tools, welding equipment, protective clothing, and garage tools and equipment. Mention was also made of interest in paints, particularly for vehicles.

Further information: Mr G. M. Lyndsell, Fairs and Promotions Branch, Department of Trade, tel. 01-248 5757 ext. 7314.

Counter trade information

The Department of Trade has revised its information note on counter trade. It describes the forms which such transactions may take and draws the attention of exporters to some of the points which need to be taken into account in negotiating counter trade commitments.

The note also advises exporters to seek advice at an early stage from firms specialising in the disposal of goods received in counter trade and includes a list of such firms.

Copies are available from Export Policy Branch, tel. 01-215 5367. The note is designed to cover counter trade generally but there is also a further guidance note on oil counter trade available from Commercial Relations and Exports Division 5, tel. 01-215 5376.

Credit totalling £10m for Yugoslavia and Hungary

Two lines of credit, each of £5 million, for Yugoslavia and Hungary have been backed by the Export Credits Guarantee Department. The credit has been made available in both cases by Morgan Grenfell.

The loans will help finance a wide range of UK capital goods and associated services contracts placed in the UK by Yugoslavian buyers. UK suppliers will receive 85 per cent of the contract value from the loan and the remaining 15 per cent is payable from the buyers' own resources. To qualify under the terms of the loan a contract must have a minimum value of £20,000.

The loan for Yugoslavia, is made available to Privrendna Banka Sarajevo, and contracts must be placed by April 1980.

Contracts under the line of credit made available to the National Bank of Hungary must be placed by October 1980. Contracts placed under previous lines, which have been well used by British suppliers, have included cranes, fork-lift trucks and handling equipment, computer equipment and a wide variety of textile and other industrial machinery.

Exporters interested in the facilities should contact either Mr D. De Silva of ECGD (tel. 01-606 6699 ext. 7575), or (Yugoslavia) Mr K. E. Thomas, or (Hungary) Mr A. P. Ball of Morgan Grenfell, tel. 01-588 4545.
4545.

East-west marketing seminar in Poznan

The fifth United Nations-Economic Commission for Europe seminar on east-west trade promotion, marketing and business contacts was held at Poznan, Poland, from 24 to 26 April. It was the fifth in a series of seminars organised by the Economic Commission for Europe's committee on the development of trade, and it took place in Poznan for the first time, the previous four having been held in Geneva.

The British delegation was led by Mr D. Liston, pro-rector of the Polytechnic of Central London, and included Mr J. Cooper, overseas trade consultant, Shell; Mr R. Foxwell, chairman, Marconi Instruments; Mr M. Cohen, Department of Trade; and Mr R. Land, general manager, eastern export operations, Rank Xerox, who presented a paper on 'entering and developing a market for industrial products: pre and post sales activities'.

Exchange rates

The bank note rates oof exchange in London on 18 April are given below. Supplied by Thomas Cook Bankers Ltd, the rates are intended as a guide only and are subject to fluctuation. OECD countries are shown in bold.

		You buy at	You sell at
Afghanistan	Afghani	125	1.45
Andorra	(See France/ Spain)	—	—
Antigua	E. Caribbean dollar	5.40	5.60
Argentina	Peso	2 325	2 725
Australia	**Dollar**	**1.86**	**1.92**
Austria	**Schilling**	**28.40**	**30.40**
Bahamas	Dollar	2.05	2.20
Bahrain	Dinar	0.805	0.84
Barbados	Dollar	3.98	4.31
Belgium	**Franc**	**62.60**	**66.10**
Belize	Dollar	4.20	4.77
Benin	CFA	455	475
Bermuda	Dollar	2.00	2.14
Bolivia	Peso	45	58
Botswana	Pula	1.95	2.15
Brazil	Cruzeiro	55	70
Brunei	Dollar	4.60	4.80
Cameroon	CFA	455	475
Canada	**Dollar**	**2.34**	**2.41**
Chile	Peso	70	85
China	Ranimbi Yuan	—	—
Colombia	Peso	75	90
Costa Rica	Colon	19.00	23.00
Cyprus	Pound	0.7125	0.7525
Denmark	**Krone**	**10.83**	**11.33**
Dominica	E. Caribbean dollar	5.40	5.60
Ecuador	Sucre	55	68
Egypt	Pound	1.55	1.70
Eire	**Pound**	**1.01**	**1.05**
Fiji	Dollar	1.76	1.84
Finland	**Markka**	**8.20**	**8.55**
France	**Franc**	**8.90**	**9.30**
Germany, FR of	**Deutschmark**	**3.88**	**4.10**
Gibralter	Pound	1.00	1.05
Greece	**Drachma**	**73.75**	**78.75**
Grenada	E. Caribbean dollar	5.40	5.60
Guyana	Dollar	9.25	Refer
Hong Kong	Dollar	10.40	10.87
Iceland	**Krona**	**777**	**807**
Indonesia	Rupiah	1 330	1 530
Iran	Rial	207	Refer
Iraq	Dinar	0.75	0.80
Israel	Pound	44.50	48.50
Italy (20 000 and smaller)	**Lira**	**1 720**	**1 805**
Japan	**Yen**	**452**	**477**
Jordan	Dinar	0.625	0.665
Korea(s)	Won	1 280	1 480
Kuwait	Dinar	0.58	0.61
Lebanon	Livre	6.80	7.30
Liberia (see USA)		—	—
Libya	Dinar	1.30	1.80
Luxembourg (see Belgium)	**Franc**	**62.60**	**66.10**
Madeira (see Portugal)	Escudo	96.50	101.50
Malaysia	Dollar	4.64	4.86
Malta	Pound	0.72	0.75
Mauritius	Rupee	11.88	13.75
Mexico	Peso	44	52
Monaco (see France)	Franc	—	—
Netherlands	**Gilder**	**4.21**	**4.44**
New Zealand	**Dollar**	**1.92**	**2.01**
Nigeria	Naira	2.30	Refer
Norway	**Krone**	**10.54**	**10.99**
Oman	Rial	0.72	0.7650
Pakistan	Rupee	20.00	25.00
Peru	Sol.	435	585
Philippines	Piso	15.00	17.00
Portugal	**Escudo**	**96.50**	**101.50**
Qatar	Rial	8.00	8.35
Saudi Abrabia	Rial	7.03	7.39
Seychelles	Rupee	12.77	13.25
Sierra Leone	Leone	2.25	2.50
Singapore	Dollar	4.48	4.67
South Africa	Rand	1.90	2.10
Spain	**Peseta**	**139**	**146**
Sweden	**Krona**	**9.00**	**9.40**
Switzerland	**Franc**	**3.53**	**3.75**
Syria	Pound	8.20	9.45
Taiwan	Dollar	87	102
Thailand	Baht	39	46
Trinidad and Tobago	Dollar	5.30	6.40
Turkey	**Lira**	**85**	**89**
Uganda	Shilling	40	Refer
United Arab Emirates	Dirham	8.00	8.35
USA	**Dollar**	**2.06**	**2.12**
Yemen Arab Republic	Rial	12.50	14.50
Yugoslavia	Dinar	42.50	44.50
Zambia	Kwacha	6.00	Refer

Where more than one rate applies to a currency, the rate given is that for small denomination notes.

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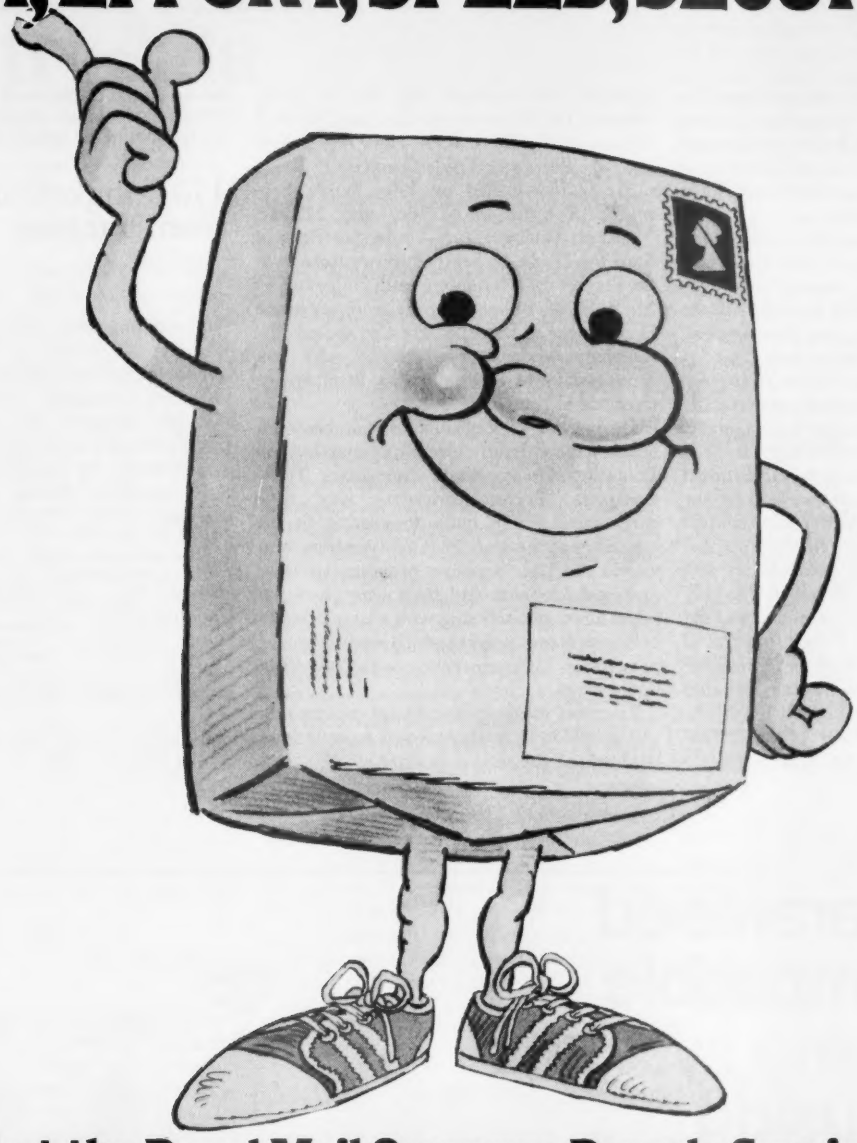

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OVERSEAS SERVICES

Bulgarian industrialists to discuss co-operation

A delegation of Bulgarian industrialists is to visit the UK in the next two months to discuss co-operative projects with British companies.

This was agreed at the seventh meeting of the UK-Bulgarian joint commission held in London from 9 to 12 April.

The delegations agreed there were good prospects for an increase of trade and that excellent opportunities existed for co-operation in industrial fields, especially in the metallurgical, engineering and the chemical, electronic and electrical industries.

The meeting was under the joint chairmanship of Mr R. A. Browning, under-secretary in the Department of Trade, and Mr A. Guinev, Bulgarian deputy minister of foreign trade.

In addition to officials from the Department of Trade and the British embassy in Sofia, the UK delegation included a strong team of businessmen with a view to following up discussions which had taken place during last year's joint commission and the visits in July 1978 of Mr Pankov, Bulgarian minister of the chemical industry, and in March this year of Mr Chakarov, Bulgarian minister of machine building. Business representatives included Mr R. V. Findlay, National Coal Board; Mr L. Friedman, London Chamber of Commerce and Industry and NEI; Mr J. F. Gilmore, Catalytic International Inc; Mr M. J. M. Morgan, GKN Contractors Ltd; and Mr M. J. Sellars, Shell. Mr A. R. B. Hore represented the East European Trade Council.

Mr Guinev called on John Smith, Secretary of State for Trade, and Michael Meacher, Parliamentary Under-Secretary of State for Trade, on Lord Goronwy Roberts at the Foreign and Commonwealth Office and on Mr R. H. W. Bullock, deputy secretary in the Department of Industry. He also visited Birmingham, where he saw the new exhibition centre, and was entertained by Birmingham chamber of commerce.

During the week of the joint commission a team of three deputy directors general of the Bulgarian foreign trade enterprises Technoexport, Technoexportstroy and Bulgargeomin, whose main interest is in co-operation on projects in third countries, also visited the UK. Separate programmes were arranged for them and they were given the opportunity of discussing with a large number of British firms the areas which seemed to offer possibilities for co-operation to the benefit of both parties.

The next meeting of the joint commission will be held in Bulgaria on a date to be decided later during the second quarter of 1980.

Notices to importers

Issued by the Department of Trade
Telephone inquiries should be addressed to the number at the end of the notice.

1737: imports of pottery from Hungary

Notice to importers 1718, *Trade and Industry*, 5 January 1979, set out the 1979 quota arrangements for imports from the state trading area, including Hungary. Following clearance through European community machinery certain changes have been made to the quota arrangements for Hungary. Quotas R9 and R10 should be deleted and the following inserted:

Quota no.	CCT heading no.	Description	Value £1 000 cif
R9	69.11 69.12 69.13	Domestic and ornamental china and earthenware	323

The remaining quotas should be re-numbered accordingly.

Inquiries: Import Licensing Branch, Tel. 01-603 4644 ext. 278.

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Overseas trade country data

Australia

Motor vehicles. The Australian government has requested the Industries Assistance Commission to inquire into and to make recommendations as to what assistance measures should be accorded after 1984 to the local production of motor vehicles falling within tariff items 87.02.1 and 87.02.2, and parts and components of a kind used in these vehicles. The commission must submit its report to government before 25 March 1980.

UK firms and trade associations intending to submit evidence at the public hearings, the location and dates of which will be announced later, should advise the Secretary, Industries Assistance Commission, PO Box 80, Canberra, ACT 2600, without delay. Evidence may be submitted either through an accredited agent of the firm or trade association concerned or through the Australian British Trade Association, 6th Floor, Dorland House, 18-20 Lower Regent Street, London SW1Y 4PW, tel. 01-930 2524, which will represent UK firms' and trade associations' interests if authorised. The association charges a fee for its services, the amount varying according to the work entailed in the preparation of a submission and whether or not the interested party is a member.

Inquiries: CRE 01-215 5319.

Ref: CRE 428/79

Nuts, bolts and screws. A notice in *Trade and Industry*, 13 November 1978, reported that the Australian Industries Assistance Commission had issued a draft report on the question of providing assistance to the local industry producing nuts, bolts and screws. The notice also gave details of the public hearings which had been convened to receive submissions on the draft report.

Following these hearings the government has announced certain duty changes under tariff heading 73.32.

1 Under this heading the general and preferential rates of duty are now 25 per cent, thus removing the preferential margin.
2 Iron and steel screw hooks and screw rings presently subject to primage, and certain cotters and cotter pins are to be duty free.
3 The temporary duty of 10 per cent on screws for wood will be discontinued.

Inquiries: 01-248 5757 ext. 468/469/401.

Tyres and tyre cases. A notice in *Trade and Industry*, 28 October 1977, stated that the Industries Assistance Commission (IAC) had been asked by the Australian government to report on the long-term assistance needs of the tyre and tyre case industry.

The IAC has now reported and the Australian government has announced that the present temporary duty of 15 per cent on radial passenger car tyres and all truck and bus tyres should remain until 31 December 1979. Thereafter a phasing period approaching three years will apply, with duty at 35 per cent on 1 January 1980, and 30 per cent from 1 January 1981, reaching the long-term rate of 25 per cent on 1 January 1982.

The Australian government also decided that the duty of 15 per cent on aircraft tyres should be replaced by a duty of 25 per cent.

Inquiries: OTAR 01-248 5757 468/469/401.

Dental materials. The Australian government has requested the Industries Assistance Commission to inquire into and report on the assistance needs of that sector of industry producing dental materials falling within tariff items 30.05 and 34.07.

UK firms or trade associations intending to submit evidence at the public hearings, the date and location of which will be announced later, should advise the Secretary, Industries Assistance Commission, PO Box 80, Canberra ACT 2600, Australia, without delay. Evidence may be submitted either through an accredited agent of the firm or trade association concerned or through the Australian-British Trade Association, 6th Floor, Dorland House, 18-20 Lower Regent Street, London SW1Y 4PW, tel. 01-930 2524, which will represent UK interests if authorised. The association charges a fee for its services, the amount varying according to the work entailed in the preparation of a submission and whether or not the interested party is a member.

Inquiries: CRE 01-215 5319.

Ref: CRE 736/79

France

Approved breeds of cattle. A notice was published in the French *Official Journal*, 29 March, concerning the list of breeds of cattle shown in the Register of the Ministry of Agriculture. The list of approved breeds published in the French *Official Journal* of 9 March 1966 is cancelled and replaced by the following:

Armoricaine, Aubrac, Blanc bleue belge, Blonde d'Aquitaine, Bretonne pie noire, Brune des Alpes (Schwyrz, Braunvieh, Bruna Alpina), Charolaise, Flamande, Francaise frisonne pie noire (Zwartbont, Schwarzbunt, Holstein Friesian), Jersiaise, Limousine, Maine Anjou, Normande, Parthenaise, Pie rouge, Abondance, Montbeliarde, de l'Est (Fleckvieh), Salers, Tarentaise.

Copies of the French text are available.

Inquiries: OTAR 01-248 5757 ext. 423/408/439.

Iran

Work permits. The Iranian press carried announcements on 20 March that existing work permits of foreigners in Iran would be cancelled and new ones issued to those whom the country really needed.

The British embassy in Tehran understands that the procedure is as follows. Existing work permits, whatever their official expiry date, will be valid only until 21 April for unskilled and semi-skilled workers up to technician level, and until 21 June for skilled workers including managers, teachers and engineers. Before the appropriate date employers in Iran are to submit to the Foreign Residents Bureau applications for work permits for any foreigners whom they are employing. These will be considered and if approved the original work permit will be confirmed with its original expiry date being retained.

Foreigners not yet in possession of a work permit will have to apply for a work visa outside Iran in the normal way.

Inquiries: CRE 01-215 3454.

Ivory Coast

Tariff amendments. The customs authorities in the Ivory Coast amended on 1 March import duties and VAT rates on certain goods under customs tariff numbers 87.01, 87.02, 87.04 and 87.05.

In addition, vehicle building firms are no longer eligible for the 50 per cent reduction in VAT.

Inquiries: OTAR 01-248 5757 ext. 472.

Lebanon

Footwear polish. The Lebanese *Official Gazette* no. 10, 8 March, published details of amendment no. 356 to the customs tariff which increased the rate of duty on polishes and creams for footwear falling under CCCN heading 34.05 from 18 per cent to 30 per cent *ad valorem*.

Inquiries: OTAR 01-248 5757 ext. 457/7062.

Arabic teleprinters were demonstrated by ITT Business Systems at the Middle East Communications Exhibition in Bahrain this week (April 23 to 26). Picture shows the ITT 2300 electronic teleprinter, produced at the ITT Creed factory at Brighton.

Nicaragua

Devaluation of the cordoba. The Nicaraguan Central Bank announced on 6 April that from 7 April the cordoba would be devalued. Press reports state that the Central Bank buying rate will be 9 cordobas to the US dollar and the selling rate 10 cordobas per US dollar. This represents a 22.2 per cent devaluation.

Inquiries: CRE 01-215 5290.

Spain

Import duty amendment. The Spanish *State Gazette*, 29 March, published royal decree 634 of 1979 which had the immediate effect of amending the amount of import duty payable on the following products under CCCN 39.02:

CCCN no./Goods	Import duty Per cent
39.02 subsection C	
Styrene polymers and copolymers:	
1a Hydrogenated, styrene-butadene co-polymers with a styrene content of more than 60 per cent	1
b Other	24
39.02 subsection L	
Polypropylene:	
2a In strips of a thickness of less than 0.016 mm	Free
b Other	25

Inquiries: OTAR 01-248 5757 ext. 458/461.

Sweden

Diesel oil prices. A further change in maximum prices of diesel oil was made by the Swedish authorities on 22 March. Maximum prices are now:

Diesel oil	
A Sales ex-pump	85 Ore per litre
B Other sales	80 Ore per litre
Light diesel oil	90 Ore per litre

Inquiries: CRE 01-215 5303.

United States

Speciality steel. Imports in pounds weight from the EEC for the product under quota as at 30 March 1979:

Plates of stainless steel (item 923.21)	4 654 093

Inquiries: CRE 01-215 5397.

Overseas trade export services

Sealink and Seaspeed on Prestel

British Rail is a major information provider in the new Post Office viewdata system, Prestel, which has opened for public service in the London area, prior to expansion to other areas later this year.

Prestel, using a link with the telephone system and suitably equipped television sets, converts what are otherwise normal television receivers into visual display units connected to a central computer. Users can obtain comprehensive information without leaving their armchairs or business desks.

At the press of a button Prestel users will receive up-to-date information on Sealink's complete range of business activities – ferry services and fares, through rail-sea services to Europe, Ireland and the Channel Islands, and freight services. Details of Seaspeed hovercraft services will also be provided as well as British Rail information on domestic services.

To obtain an index of British Rail information Prestel users key number 221. For Sealink details the 'entry page' number is 545. At first, BR will have 2000 'pages' of information on Prestel and Sealink 3500 'pages' but the number of entries will be increased considerably later.

Further information: circle 406

Emery cuts rates to New Zealand

A month after cutting rates to Australia, Emery Air Freight has announced reduction of up to 27 per cent on rates to New Zealand. It is also offering free storage, fast delivery, good currency conversion rates and competitive volume conversion factors.

As part of its new pricing structure to New Zealand, Emery has scrapped price breakpoints on freight up to 250 kilos – and instead of the five different weight rates it operated previously, has introduced just one. To Auckland, for instance, all freight under 250 kilos will be charged at £3 per kilo, with other rates being £2.99½ per kilo for 250 kilos and £2.70½ for 500 kilos (minimum charge: £7.50).

New tariffs to Wellington and Christchurch have been similarly structured.

Further information: circle 407

More business tours

Lunn Poly has launched another programme of cost saving tours for business travellers. New destinations are Seoul, Brisbane, Nairobi, Cairo, Kuwait, Montreal, Caracas, Sao Paulo and Buenos Aires.

There are some price reductions compared with last year for Singapore and Hong Kong based combination tours, United States, Canada and Mexico, while Australian prices have halved with the use of the recently introduced super-Apex fares.

Further information: circle 408

Groupage service for Kuwait

Europe-Middle East ro-ro services operated by Foss Shipping have been extended to accept groupage traffic for Kuwait. Foss added Kuwait to its range of Gulf calls early in 1978. Since then, a steady increase in traffic has reflected a demand for the groupage facility now being introduced.

Sailings for Kuwait depart from Felixstowe on a monthy basis. Foss Shipping's Felixstowe port agents, Fred Olsen, will handle groupage traffic inquiries and bookings. The new groupage facility complements the groupage services already available on Foss sailings to Jeddah and Dubai.

Further information: circle 409

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Overseas trade exhibitions

Britain still largest foreign exhibitor at Hanover fair

From Ken Green, British Overseas Trade Board, Hanover

Britain, with over 250 exhibitors, retained its position as the largest foreign group at the Hanover trade fair, held this year from 18 to 26 April. More than 130 British companies were represented on group stands organised under the British Overseas Trade Board's joint venture scheme. They covered a wide range of products including scientific instruments, electrical machinery, lighting, electronic equipment and components, office equipment, and hydraulic and compressed air equipment and engineering products.

The feeling of British exhibitors in the first few days of the fair was of optimism for increased business both in Germany and in other important overseas markets. Expectations as high as a 25 per cent increase were reported in some sectors.

One of the joint venture participants, Cecil Poulton, managing director of Spencer Gears, said: 'This is the first time that the company has exhibited overseas and I have found it extremely worthwhile from the very serious inquiries received. I am absolutely confident of getting at least £250,000 orders from the fair in the next year. I foresee export orders becoming increasingly important to us and Hanover has been the perfect launch pad for us to go into Europe in a big way. More companies should use the BOTB services – and increase their exports.'

Since it was established in 1947, the Hanover fair has grown into the largest international industrial fair in western Europe. It is now a series of specialised trade fairs for industrial products, plant and equipment held in April each year and on the same vast site containing 24 exhibition halls and considerable outside exhibition space. There were more than 4000 exhibitors this year.

The Hanover fair authority reported a 15 per cent increase in visitors for the first three days of the fair – a total of 105 500, including 12 146 visitors from 83 countries (an increase of 10 per cent over 1978).

Jim Wilks, chief executive of the BOTB, visited the fair on 19 and 20 April and saw all the joint venture participants. He addressed a reception organised jointly by the British German Trade Council and the Norddeutsche Landes Bank. He said British participation at the fair was 'a vivid indication of the importance our exporters attach to this growing and valuable market.'

Bill Pickett of the British Electrical and Allied Manufacturers' Association, sponsors of one of BOTB's 12 joint ventures, commented: 'The Hanover trade fair is the marketing crossroads of the world and as such is of outstanding importance to the British electrical industry. From Hanover we get more firm business leads than from any other trade events in the world.'

Energy conservation dominant theme at Frankfurt fair

Mike Hilton, British consultate-general, Frankfurt

About 218 000 visitors from more than 60 countries attended the tenth Frankfurt international trade fair for sanitation, heating, and air conditioning equipment (Ish) from 28 March to 1 April. This represents an increase of 18 per cent over the last fair.

Energy conservation and the need to combat pollution were the dominant themes at Ish, reflecting concern in the trade about the rising cost of energy and raw materials. In spite of these clouds on the distant horizon, the vast majority of the 1198 exhibitors from 18 countries declared themselves well pleased with the level of business achieved at the fair.

British participation at Ish was spearheaded by a joint venture of 15 British companies sponsored by the British Overseas Trade Board and the Hevac Association. British exhibitors were pleased with the number and the quality of the inquiries they attracted. 'We hoped to find an agent in Ger-

Inward mission pays off for British exhibitors at Paris electronics salon

From Helen Taylor, British embassy, Paris

There is evidence to indicate that the officially sponsored inward mission of French electronic equipment manufacturers organised in June 1978 and the exhibition held in the ambassador's residence in January this year have helped British exporters to establish themselves in France.

This is the conclusion after the performance of 100 British exhibitors at this year's Salon International des Composants Electroniques, held in Paris from 2 to 7 April.

The atmosphere was buoyant, as might be expected of this fast-developing and diversifying industry. It had been forecast that the French market would expand by up to 26 per cent annually until 1981, and 90 000 visitors were expected to attend this year's salon. To meet this demand, over 1500 exhibitors were present, of whom well over half were from abroad.

Britain's 100 exhibitors were outnumbered only by the United States and Germany. Of the 45 companies taking part in the joint venture sponsored by the Electronic Components Industry Federation and the BOTB, some returned after a break of several years.

Rank Optics, demonstrating applications of its fibre optic technology, received as many as 75 serious inquiries per day, mostly from France but also from Italian and Swiss customers. Rank Electronic Tubes calculated that business was twice as good as last year, and attributed this to the expansion in the French market which the company is well placed to exploit.

Allen Bradley Electronics Ltd found that there was a far greater volume of interest in its products by potential end-users, mainly in the data processing and telecommunications industry, than ever before. Marconi Instruments Ltd, presenting measuring equipment, was also satisfied with the level of inquiries from France and elsewhere in Europe.

A company that has more recently entered the French market, Keland Electronics Ltd, attended the event for the first time. It received inquiries not only from France but also from Holland, Italy and Germany, and is resolved to return next year. Veeder-Root, which has done particularly well in marketing tachographs in the face of well-established competition, reported double the number of business inquiries that it had received last year, and estimated that it had made 100 new contacts.

These were encouraging results in a market which is not considered to be easy to penetrate. According to exhibitors at this salon, the only secret to success is persistence.

Richard Evans, minister (economic) at the British embassy in Paris, scrutinising the Pye's viewdata.

many for our space heater and fan convectors', reported Mr Hayes of Boscombe Engineering, 'but we received 60 inquiries from 15 countries'.

This view was echoed by Mr Gray of Metlex Industries Ltd, who was delighted at the interest shown by visitors in the Magnum modular bathroom – the first complete fitted bathroom system in Europe, incorporating bath, w.c., shower, vanitory basin, and bidet, all to modular design to give a continuous line. 'My company received more inquiries on the Wednesday than during the whole of the 1977 fair', he said. Chris Williams of Yorkshire Imperial Metals considered the 1979 Ish to be 'the best fair he had ever attended'.

The success of the British joint-venture exhibitors was aptly summed up by Janet Soar of the overseas division of the Building Exhibition, who helped to organise the British Participation: 'I have organised trade fairs in all parts of the globe', she said, 'and the Frankfurt Ish is simply the cream of exhibitions. It must be the trade fair to come to.'

Large sales expected from Los Angeles tool fair

From Al Close, British consulate-general, Los Angeles

Orders worth $225,000 with the prospect of $8 million of additional sales being generated over the next 12 months are estimated as a result of British participation at Westec '79, the annual western metal and tool exposition conference in Los Angeles. Sixteen British firms took part in a joint venture supported by the British Overseas Trade Board.

Westec ended its sixth year with all records broken. The number of visitors (41 986) was a record, as were the number of exhibitors (396) and the floor space they required (123 748 ft).

Big machine manufacturers demonstrated how to do jobs in a better way, faster and with greater accuracy for less money. Manufacturers of smaller equipment were selling increased accuracy at reduced costs. Numerous new products were on display by the fixture, accessory and supply firms.

Collective exhibits

Foreign competition consisted of collective exhibits by West Germany and the UK and many exhibits by independent participants.

The quality of Westec is demonstrated by the keen attendance from the shopfloor after working hours: the influence of the shopfloor in the buying decision is well recognised by exhibitors.

Westec serves the southern California market of around 15 million people. In addition, visitors came from such distant places as Vancouver, British Columbia, Texas, Oklahoma and Hawaii.

British manufacturers who wish to participate in Westec '80 should make an early decision and communicate with Fairs and Promotions Branch, Department of Trade (01-248 5757): almost all the space has been booked.

British furnishings and wall-coverings displayed at Lyon

From Henry Burlet, British consulate-general, Lyon

More than 150 trade buyers were among the visitors to a two-day Detexho exhibition organised by the commercial section of the British consulate-general in Lyon. The aim of the exhibition was to promote in the Rhône-Alpes region a select range of wall-coverings and furnishings produced by some famous British manufacturers. There are a good number of furnishers, decorators and retailers in the provinces who do not visit trade fairs in Paris or in the UK.

Invited

Many decorators, furnishers, contractors, wholesalers and retailers from the Rhône-Alpes region were invited to see a wide range of wall-coverings, furnishings and decorative articles displayed by the French agents and concessionnaires of 16 British manufacturers.

All participants made their displays attractive and the agents and distributors for Warner and Sons, Coloroll, Sandersons and the local Laura Ashley branch created remarkable stands.

At the end of the first day, which was reserved for professional visitors, Mr H. E. Rigney, the consul-general, received representatives from the press and trade associations who were enthusiastic about this exhibition.

The very wide selection of wall-coverings – paper and textile – and co-ordinated fabrics, attracted a great deal of interest from both professional and private visitors, who had the chance to see new collections of fabrics which had been displayed at the textile exhibition of La Bastille in January but not yet shown in the provinces.

The reputation of papers and co-ordinated fabrics made in Britain which can be used for wall coverings, curtains and bedcovers, is well established, and French decorators clearly wish to be kept informed of new British patterns and pastel shades.

Wide selection

A wide selection of etchings, prints, flowercrafts and painted mirrors made by five British manufacturers and craftsmen of the midlands, and imported by their agent in Lyon, also attracted many trade buyers. Etchings representing historical views of Lyon in the years 1540 to 1600 reproduced from old sketches and manufactured by a firm in Birmingham (twinned with Lyon) were particularly appreciated.

For its part Arenson International, which showed for the first time in France its new Fabritrack system for fixing textile coverings on walls, expressed satisfaction at the number of visitors received and trial orders booked.

Judging by reactions noted locally both participants and visitors felt the effort well worthwhile.

Taking the products to the provinces.

Scientific firms at Texas show

From Ronald Harrison, commercial consul, Dallas

Eight British companies took part on the Federation of American Societies of Experimental Biology (Faseb) sixty-third annual meeting held in Dallas, Texas, this month.

They attended through their US subsidiaries, in a joint venture sponsored by the British Overseas Trade Board and the Scientific Instrument Manufacturers Association of Great Britain (Sima).

A substantial number of serious inquiries were received by the participants: Omnifit, Gordon-Keeble, Malvern Instruments, Micro Instruments, Planers Products, Slee Medical and Starna and Techne. All plan to exhibit at the next Faseb was useful as a means of gaining information about the latest market trends and developments and about their competitors' products.

World's largest

The Faseb meeting and exhibition, which claims to attract the largest number of scientists in the world, included all six member societies of the federation and two guest societies. Only five societies participated in 1978 and this increase was undoubtedly a major factor in adding to the growth in the number of visitors. There were 19 000 compared to 13 000 last year and over 15 000 of these were scientists. The 260 scientific lectures and seminars which took place during the 10 days of the meeting were useful in promoting the exchange of information between scientists working in the field of experimental biology. Three-hundred and eighty companies exhibited in 680 booths.

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Credit factoring

Trade and Industry special report

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Published with the 27 April 1979 issue.

Editorial
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Facility for expansion

After a tentative start and several setbacks, Britain's factors are now playing an increasingly important role in the financial and management scene. Ann Edge explains how factoring has evolved as a commercial service and describes how it works.

Factoring is both a financial technique and a mangement service. It has been described as a way of 'increasing the productivity of money' by converting funds currently locked up in trade debts to active means of commercial growth. But factoring is not a lending operation and factors will not provide their services for firms that are experiencing severe financial problems. Nor are factors concerned with consumer debts. Credit factoring is at present concerned solely with debts due from traders.

But to answer the question, what is factoring and how does it work, we must go back in time.

In Britain, agent factors can be traced back to the early middle ages. They were particularly important in the development of one of medieval Britain's most important industries – the textile industry. Towards the end of the fourteenth century Blackwell Hall, adjoining the Guildhall in London, began to be used exclusively for the transactions of business by textile factors and their clients. In the cloth industry the factor would advise the supplier on market trends and demands. The factor would store material for the supplier and send samples to prospective buyers. He would provide finance for the supplier through advances and for the buyer through the extension of credit. So, the early factor fulfilled a financial role, extending credit frequently over quite long periods of time and accepting the credit risk.

At the same time agent factors were becoming important on the continent, particularly in northern Italy, making a clear contribution to the growth of foreign trade. Gradually the term 'del credere' began to appear and, in 1771, John Hartman Eberhart, a Swedish economist, defined the term: 'del credere is the undertaking of the part of a commission agent to assume responsibility for the credit worthiness of the buyer or his ability to liquidate his debt on the due date'. By the time the great trading companies such as the East India Company had come to dominate foreign trade in the eighteenth century, the financing element had become an integral part of the factors services. But it was in the United States that the great change in the function of the factor occurred from the joint role of marketing and credit control to a concentration on credit control and financial activities alone.

Soon after the *Mayflower* reached north American shores trading agreements were established between the colonists and English merchants and factors initially continued in very much the same role as they had established in Europe, acting as the correspondent of one or several colonial merchants and frequently establishing an employee as an agent factor in the colony. As the population rapidly increased the demand for European merchandise, especially textiles, increased correspondingly and further strengthened the factors position in servicing American imports. In particular, as the drive westward across America continued, distance made it extremely difficult for an English manufacturer to operate without a local agent to give advice and protection against credit risks. But as the United States economy developed the American producer overtook the English manufacturers as the major supplier. The factoring houses continued to perform financial services for the United States producer but his mills had their own sales and marketing departments so the selling functions of the factoring houses gradually disappeared and the financing and accounting side of their business grew in importance.

Today United States' factors still retain their traditional links with the texile industry whereas the factoring houses which have developed in Britain over the last two decades have tended to cover a wider spread

of industry. This, combined with Britain's historical interest and dependence on international trade, has lead to the development of important functions in this country's factoring houses.

Development of UK factoring

Factoring involves the selling of trade debts or, to use the American term receivables, by the supplier to the factor. The company selling the debts is known as the factor's client. The company receiving the goods or services from the client, who becomes as a result of the agreement between the factor and his client the factor's debtor, is known as the customer.

Today most factors operate a without-recourse factoring facility. This indicates a facility where the factor does not have recourse to the client should the customer be unable to pay. Thus the factor takes the loss and enables the company to avoid incurring bad debts.

Many clients will initially approach the factor mainly for the cash flow benefits the factoring service provides. Thus they may opt for the service known as 'old line' or full factoring indicating that the factor will advance an agreed percentage of the client's trade debts before the collection date. Alternatively, 'maturity' factoring might be more appropriate for a particular client. In this case payment is made to the client on a guaranteed date, known as a maturity date, established and agreed by the factor and the client after a review of the client's actual experience.

Although the payment of money against trade debts still plays an important part in the activities of most factoring houses, more companies are now emphasising the professional services offered by the factors. There are three:

1 Sales ledger accounting. The factor maintains a full sales ledger service and sends regular statements to the client.

2 Collection of debts purchased from the client. The factor undertakes the collection of amounts owing when debts fall due.

3 Credit insurance. A factor establishes credit limits for trade between his client and each customer and in most cases will then give a client 100 per cent protection against non payment.

Association of British Factors

Alex Lawrie Factors Ltd
Lloyds and Scottish, 75 per cent
First National Bank of Boston, 25 per cent
Arbuthnot Factors Ltd
Arbuthnot Latham, 66⅔ per cent
Yorkshire Bank, 33⅓ per cent
Barclays Factoring Ltd
Barclays Bank, 100 per cent
Credit Factoring International Ltd
National Westminster, 100 per cent
Griffin Factors Ltd
Midland Bank Finance Corporation, 100 per cent
H&H Factors Ltd
Walter E. Heller Overseas Corporation, majority
Independent Factors Ltd
Lloyds and Scottish, 75 per cent
First National Bank of Boston, 25 per cent
International Factors Ltd
First National Bank of Boston, 25 per cent

For the rapidly expanding business, the service can free management to concentrate on production, marketing and planning, provide credit security, and where advance payment facilities are used, accelerate cash flow.

But there are some disadvantages. Some may arise from misunderstanding of the factor's role, or from inefficiency of the client as well as the factor. There can be other problems. Some businesses feel their customers may be unhappy with the introduction of a third party and the possible loss of direct contact resulting from the intervention of a factor between client and customer. Clearly a good working relationship between factor and client, and regular contract is essential. Then there is the cost. A clear assessment of the costs and benefits, both tangible and intangible, resulting from a factoring agreement must be made.

The commission charged by a factor is made up of two charges, a service charge and a charge for the advance payments against invoices where applicable. The service charge is based on the client's sales turnover and is generally quoted between 0.75 and 3.0 per cent, varying according to the amount of work involved. A company selling to many retial outlets with low invoice values will be charged at a much higher rate than a company selling in large amounts to a few major customers. The cost of the advance payment facility is usually between 2 and 4 per cent per annum above the base rate.

Used shrewdly factoring can be an attractive facility for an expanding and efficiently run company which has the potential for growth but is hindered by a lack of capital.

Factors and the lending banks

Today, as the Association of British Factors points out, 'substantial funds are deployed by factors, mainly in support of medium and small businesses, as an extension to the facilities traditionally available to them through the banking system.' This gives factoring an accepted role in the modern business world. But when modern factoring first arrived in the UK, in the early 1960s, it did not have an easy reception. Mr F. R. Salinger, director of Griffin Factors Ltd and chairman of the Association of British Factors, discusses the relationship between factors and the lending banks.

To appreciate fully the business of a factoring company and its role in a modern banking group it is as well to remember the origins of factoring. The early factors, as we have seen, were mercantile agents in the New England states of America. They took goods on consignment from European textile manufacturers (and later from local merchants and manufacturers), found the customers, guaranteed and collected payment for the goods, and passed it back to their principals. Later as the factors prospered, they were able to make payments to their principals on account, before the customers settled. In this way the factor substituted himself as one debtor of high credit standing for the individual customers of uncertain credit-worth in the books of his principal. As communications improved it was no longer necessary for the manufacturer to consign goods to a mercantile agent – goods could be sold by sample and transported to the customer direct without delay. But the principals had felt comfortable relying on their agents who would pay 'at the drop of a hat' and were reluctant to give up this aspect of their services.

The system gave birth to the modern factor of debts (or credit factor). By purchasing the debts created by the sale of goods by their principals, the factors acquired the right to collect the debts and this took the place of the factors' traditional and prescriptive right to collect as a mercantile agent.

The modern factor of debts

The mercantile agent of old provided for his principal's services under the headings of marketing, distribution, administration and finance. Modern methods of marketing and distribution, based on fast and efficient communications and transport, dispense with the need for services under the first two heads. In much of the factoring literature produced in England in the last 15 years, it is put forward that factors provide three services:

1 A sales accounting, credit control and debt collection service
2 A guarantee against bad debts
3 Finance for trade debts.

It will be apparent to the shrewd business mind that, although such a description of factoring may be adequate for the literature purposes, factors do none of these three things. It is their own sales ledger which they administer and their own debts which they collect. But they do relieve the client altogether of the need for a sales ledger. Although factors do not give any guarantee, their outright purchases of debts without recourse to the client protects the client against loss. Although factors do not provide finance in the traditional banking sense, by making payment early they diminish the client's need for finance for working capital. By reducing the amount of the outstanding balance under the heading of trade debtors they relieve the client from the need to seek the resources to invest in that asset.

It is not possible to understand the full benefits of factoring to a growing business unless the true concept of factoring is appreciated. It is surely better to be relieved of administration of a sales ledger than to have some other organisation provide the service. In the former case the responsibility is clear: if the debts have been purchased without recourse, and if the seller is not in breach of his warranties in relation to the acceptability of the goods and the invoice, the debt must be paid; all the rest is the responsibility of the factor. On the other hand, the use of a bureau or a credit insurance company means that certain responsibilities remain with the supplier.

Relationship with the lending banker

In the early 1960s, when factoring was introduced into the UK, the lending banker looked somewhat askance at the new factoring companies. The factors had difficulties enough in trying to nurture a financial service, which, as a tender seedling, had been transplanted from the United States into a bed of law unprepared to accept it. The bankers looked upon the new arrivals as just another means to provide working capital: the equivalent of a lender competing with the banker in terms of priorities for a business asset which was most readily realisable. In those days the intention to enter into a factoring agreement by a bank customer was often met with a decision by the banker to withdraw all facilities related to current assets and working capital.

But it was not long before the banking world, adaptable as ever to the changing business scene, accepted factoring for what it was: not an alternative to bank lending or just the discounting of invoices or bills, but, in essence, the substitution in the customer's balance sheet of one debtor of undoubted standing for the myriad trade debtors consituting for the most part uncertain credit risks and, indeed, the replacement of these uncertain credit risks by one debtor that would pay early 'at the drop of a hat.' It was soon apparent that, as bank lending operates on the liabilities side of the balance sheet and the factor on the assets side, the co-operation between the two could be complete if the bank could be assured of regular reports from the factor, reports which would be up to date and enable the banker to follow more closely the development of a small, vigorously growing business.

Such thoughts may well have been one of the aspects taken into account when, in the late 1960s and early 1970s, the clearing banks entered the factoring field either by the acquisition of direct or indirect interests in existing companies or by the creation of new companies. Barclays, Midland and National Westminster now each have a wholly owned factoring subsidiary, while Lloyds and Williams and Glyns have indirect interests through the ownership by Lloyds and Scottish Finance Ltd of three factoring companies.

The factor is now another instrument at the disposal of the branch manager for dealing with the problems of his business customers. He is ready to recognise the situations – such as the prospect of rapid growth, innovation or entry into a new market – in which the factor by himself, making early payment against the debts purchased, or in co-operation with the banker, may well provide the required solution. It is as well then that the branch manager should have his group factoring company at his elbow.

The future

Factoring is suitable mainly for businesses which produce goods which can be 'sold and forgotten.' Any continuing liability to customers after invoice date can cause difficulty for the factor and the client. The modern factor therefore keeps in mind the origins of the business and, when considering a new client, will question whether the business would be suitable for a mercantile agent – after all, he is only one step removed. However, once a reputable factor has accepted a client, there are rarely any significant problems in the day-to-day management of the client/factor/customer relationship.

A recent study of business in the United States, the UK and Europe concluded that in innovation (in its meaning of translating invention into an acceptable marketable product) on the whole the small and medium-sized companies came out worse than large ones. It is in the field of helping to protect such companies from the financial risks resulting from innovation that our industry can play a vital role. The businessman who is marketing a new product can be relieved of the need to finance his debtor portfolio and can be protected against the risks of an unknown market.

When an entrepreneur has organised all the means of production and his product is in demand and acceptable, it would be a great comfort and help to know that his business worries stopped 'at the factory gate.' He should be able to be sure that his job is complete when he has reached with each product the point which should be the climax of the cycle of production the acceptance by the customer.

From the point of view of the economic well-being of the nation the increased use of factoring and other forms of asset finance is a trend to be welcomed. When businessmen no longer have to worry about financing their assets and managing them, perhaps they should be able to concentrate more on their proper function of providing the goods and services which the community expects.

Recirculating loans from NRDC

In cases where companies are unable to obtain normal loan facilities, the National Research Development Corporation (NRDC) can provide working capital in the form of recirculating loans. Although they are not strictly a form of factoring, recirculating loans have a similar effect in bridging the gap between the cash outflow on manufacturing costs and the receipt of payments from customers.

The function of NRDC is to promote the development and exploitation of new technology, so recirculating loans are confined to new products which contain a genuine technical innovation.

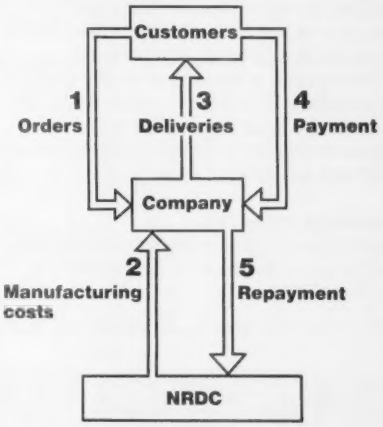
Recirculating loans are best suited to products like equipment and machinery which are manufactured and sold as specific units. For each firm order received by the company, NRDC can lend the company a sum equal to the forecast manufacturing cost of the machine or equipment, less any prepayment from the customer. When the machine is delivered to the customer and payment is received for it, the cash received has to be applied first to repay the loan on that machine. The company is permitted to call up the loan on a recirculating basis for any number of machines provided that the difference between total borrowings and total repayments at any times does not exceed a predetermined amount.

The rate of interest on a recirculating loan will be related to the base rate of one of the major clearing banks.

Details about NRDC finance are described in a brochure 'NRDC: finance for innovation' available from the Public Relations Department, NRDC, Kingsgate House, 66-74 Victoria Street, London SW1E 6SL, tel. 01-828 3400

How an NRDC recirculating loan works

Step 1 The customer places a firm contractual order with the supplying company.
Step 2 When NRDC receives written evidence of the order it can advance a loan to the supplying company to cover the manufacturing costs.
Step 3 The supplying company then manufactures the product and makes delivery to the customer.
Step 4 By the end of the invoice period the customer makes payment to the supplying company.
Step 5 The supplying company than makes repayment to the NRDC.
On the receipt of additional orders, the company can begin the cycle again.



Freeing the exporter

Results just announced by the Association of British Factors show that the international element of the total volume of business handled by the eight members of the association increased by 43 per cent in 1978, from £124 million to £177 million. This indicates, says the association, the valuable support given to exporters by factoring services. Michael Maberly, director of Credit Factoring International Ltd and member of the Association of British Factors, explains the services factoring offers the exporter.

For exporters who offer their foreign customers primarily open credit, having completed an export sale and shipped the goods overseas, waiting for payment can be a worrying time – particularly when there is anxiety about the customer's credit-worthiness. The waiting and chasing for payment also involves the commitment of time and funds, both of which could be better employed on more positive sides of any business.

Perhaps this is the reason for the increasing popularity of factoring, which offers the exporter a unique blend of services which makes selling to the foreign customer much safer and easier.

Worldwide networks

Most factoring companies have established worldwide connections to enable them to provide a service which takes into account all the differences of currency and trading conditions in the major markets of the world.

Having entered into an agreement with a factor for export services, the company submits its orders to the factor for credit approval. The factor's local office to the prospective customer is well-placed to give a swift and reliable assessment of the buyer's credit worthiness. It is probably already familiar with the company and many have had dealings with is on behalf of other clients.

Once credit approval is obtained, it provides 100 per cent protection against bad debts, and the exporter may ship the goods secure in the knowledge that he will receive total payment from the factor, even if the customer delays payment or fails to pay at all. Under the optional financial facility arrangement offered by the factors, the exporter is not only guaranteed payment but he may take up to an agreed percentage of it – possibly 80 per cent – immediately. This enables him to release the funds committed in credit to foreign buyers for more profitable use elsewhere in the business.

A growing proportion of export business is now carried out on short-term (up to 180 days), open-account credit, and this is placing an increasing burden on the accounts departments of exporting companies in dealing effectively with the management of trade credit owed by foreign buyers. This is a difficult task for which many companies are just not equipped: it would by uneconomic for them to be so. The fear of the unknown, of dealing with customers thousands of miles away, who they do not know, who speak a different language and who use a different currency, is probably one of the reasons why many companies put little effort into export selling. They are worried about waiting a long time for payment or, at worst, not being paic at all.

Complete protection

There are some of the problems which employing a factoring service can overcome. The entire sales-accounting task is undertaken by the factor whose system is designed to handle all major world currencies. Where an exporter invoices in foreign currency, part of the service is to provide complete protection against exchange rate fluctuations. Regardless of currency, the invoice amount is converted into sterling so that the exporter knows immediately how much he will receive, and his agreement with the factor will guarantee that payment on a known date.

With export factoring, dealings with customers are undertaken in their native language by the factor's nearest local office. Problems over an order – short delivery, variation in colour or quality, damage – do not drag on over months of long-distance telephone calls, and numerous letters, but are resolved speedily, on-the-spot between people who 'speak the same language'. Goodwill between exporter and customer is preserved, payment is speeded and, all other things being equal, repeat order follow.

In markets outside the factor's network, administration and liaison with customers might be carried out from head office in the UK by trained export-credit and collection staff, who would be experienced in the market concerned and in dealing with the variety of documentary payment terms that are in use today.

In order to take advantage of an export factoring service, companies need not necessarily factor their domestic sales as well. Most factors will be pleased to reach an agreement to provide an export service on its own, although a minimum annual export turnover of around £200,000 is desirable. Lower sales volumes may sometimes be considered if potential for growth is evident.

Using a factor can free the exporter completely from a task that is difficult and complex, and for which many companies are neither experienced nor equipped. This could be why an increasing number of companies are happy to let the factor assume responsibility for an area of activity which, if not handled efficiently, could spell disaster for the ambitious and growing company.

Factors are rather glad the computer was invented.

Credit Factoring International Limited

We are Britain's
leading factoring company,
and we provide
a full factoring service
for home, export
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A member of the
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Or ring us on 01-890 1390. Telex: 22593.

Source of secondary finance

Accountant C. M. Stephens, who has experience in the small firms counselling service, explains how factoring has become an important service for businessmen

Counsellors working in the small firms counselling service frequently advise clients how to overcome cash funding problems. The most usual solutions are found by clients negotiating overdraft facilities with the major clearing banks. On other occasions we might advise clients to turn to Cosira, the National Research Development Corporation, Industrial and Commercial Finance Corporation or other traditional sources of finance. Our suggestions are determined by the period of finance required, the existing financial structure of the organisation and the nature of its business.

Today factoring is being used as one of the primary sources for secondary finance.

In the early sixties factoring was in its infancy. Most of the industry was in the hands of American businessmen who had arrived in the UK to pioneer well-tried techniques from the USA. The timing and the market place was against them. Ultimately, to maintain business, they were forced to trade in unprofitable market sectors. This led to bad debts, company closures, and finally, misunderstandings about the nature of factoring and the type of firms involved in its finance.

Many of these misunderstandings will prevail today. The unsuccessful American pioneers have almost without exception left our shores. New firms and new managers now dominate the market.

The industry is now dominated by eight or nine large groups which, in turn, are controlled by even less clearing banks or major finance houses. Practices and standards are controlled through the Association of British Factors.

Factoring has now become a highly sophisticated and a large volume business. The rate of growth according to the Association of British Factors, which claim to represent 90 per cent of the market, is reaching considerable proportions. During the last two years factoring business has apparently grown by 40 per cent to 50 per cent compound per annum. It is estimated to exceed £1,000 million a year, which presumably means that the factoring debt at any time must exceed £200 million.

Who might expect to use a factor and what might it cost?

Turnover criteria

It is difficult to generalise, but unless a client has a turnover the range of £200,000 to £250,000, he is unlikely to get far with factor. Having said that, there are notable exceptions and businesses with a turnover of £50,000 and little more have made successful arrangements.

Invoice criteria

Factors are not usually interested in a multitude of small invoices. They are more likely to be interested if average invoices top the £100 mark. But again, a number of factors would not rule out items of £50. Obviously you have to pay more at the lower end of the invoice scale for a factoring service.

What the factor looks for

Factors are generally responsible business concerns. They, in turn, prefer to deal with those businesses who are controlled by sound managers.

If you are buying debts, their quality matters, hence suppliers to some sections of the 'rag trade', boutiques, small garages and 'do-it-yourself' outlets, might find it difficult to complete an arrangement with a factor. Concerns which either sell to the public or where retentions are applied – such as the building trade – will not find it easy to interest a factor.

Costs

The factor charges for his service work and this depends on the actual work load. He also charges for making advance and the rate depends on the general level of finance costs.

Frequently one may run up against a minimum charge for services as a whole. Factoring is a competitive business and clients need to shop around.

Servicing charges vary from 0.75 per cent to 4 per cent of the gross sales volume serviced. The mid-point of 2.5 per cent is a fair norm. Advances are usually provided at a cost to the supplier of 2.5 per cent to 4 per cent above finance house base rates. These are negotiable but tend to be above normal bank overdraft rates.

Some pluses the factor user might discover

An interesting, and perhaps little considered, advantage is that factoring enables the growth-orientated firm to continue its development without the necessity for the owner to part with any of his equity in the business or to have a charge registered as security. This leaves options open to increase the equity base with new shareholder involvement at a later date, or for secured borrowing on a long-term basis by way of a debenture.

Another point in favour of factoring is that it may give the small firm added 'muscle power' when dealing with larger companies. This is of importance when those large companies

Bewildering terms in the factoring world

Anyone looking for the first time into the industry may meet a number of bewildering terms: 'old-line' factoring is one of the frequently recurring terms. It is sometimes referred to as 'main line' factoring – an erroneous expression. Old-line factors provide services for manufacturers or wholesalers (commonly called suppliers). They undertake sales ledger, credit control and debt collection services for their customers. This service is known as 'maturity' factoring. Factors also provide money. They are usually willing to advance as much as 80 per cent against the outstanding sales ledger debt of their client at any one time.

These facilities may be 'disclosed' or 'undisclosed'. Where disclosure occurs, then the supplier notifies the customer that he would like payment against his invoices made directly to a factor.

Undisclosed factoring on the other hand occurs when the invoice settlements are directed to the supplier but are banked in an account over which the factor has control, or where a second sales company is formed to receive sales income. In this way the customer is unlikely to be aware of the existence of a factor. This latter type of arrangement is falling into disuse.

Recourse and without recourse factoring

Where 'recourse factoring' is used, then the supplier is not covered by credit protection. The factor still maintains the supplier's sales ledger accounting function. He has recourse to the supplier if the customer becomes insolvent.

Nearly all business is written without recourse, which conversely means that debts are, in effect, guaranteed to be good by the factor. While the facility has to be paid for, it does bring a measure of certainty into the supplier's life.

Where without recourse factoring is operated, then there have to be built-in arrangements for the factor to assist the supplier in determining who is credit-worthy and who is not. Recourse factoring arrangements may also either be disclosed or undisclosed.

Factors, therefore, should be seen as both sellers of sales accounting services in the widest sense and as lenders of short term funds. In their latter role they may be used to alleviate liquidity problems.

Invoice discounting

The invoice discounter is frequently confused with a factor. He generally offers a much more flexible service. Customers maintain the responsibility for accounting and debt collection. Credit insurance is normally not involved. The customer (supplier) discounts parcels of invoices or particular invoices with the discounter. This is in contrast to the factor who advances money against the sum of the bills rendered. The Americans call the function 'receivables financing' – an expression explicit in its brevity.

move to computer-based invoicing systems. They are naturally reluctant to make special dispensations for the small firm supplier who often needs payment to cope with next week's wages. It is sometimes said that factoring represents an additional, and non-productive cost. That statement overlooks the real value of the services provded which range from ledger control, credit vetting and, above all, an additional injection of finance into the business so that expansion can proceed. One of our inquirers once remarked factoring represented 'peace of mind and a restful night' and for many proprietors of small firms that can almost be an asset without price in these difficult times.

Conclusion

Factoring has become an important area of finance and a service which the smaller business should examine as a source of secondary finance. It is unlikely to be the first source of finance. That is usually the role of the clearer. It will never be the source for permanent long-term money.

Field experience

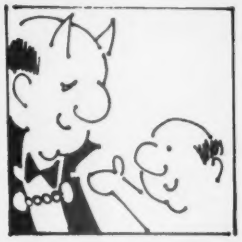
From the Small Firms Information Centre at Nottingham

Very young firm. One of our clients was a very young firm which was supplying goods and services to a lucrative and expanding market. Unfortunately, because of its short trading history and its relatively narrow equity base, it found itself up against the limit of an overdraft facility. Recourse to a factoring house (an exhibitor at one of the SFIC's exhibitions), provided the means of overcoming this apparently insurmountable obstacle to continued expansion. Until then the company had not considered that there might be an alternative source of short-term finance. It is perhaps worthy of emphasis that the phrase 'short-term' can mean exactly that. Contrary to widely held belief, factoring need not imply being locked-in to the facility for ever; it can be utilised and dispensed with as the need demands.

Building specialist. Yet another small Nottingham-based firm which hired out specialist machinery and labour to building contractors solved its funding problems with an invoice discounter. It had reached that sometimes inevitable point where lack of liquidity militated against further expansion.The discounter provided the solution. We were pleased to learn a year or so later that – due to a significant increase in turnover – the firm had been able to dispense with the facility to the mutual satisfaction of all concerned.

Up-market move. A small engineering firm which undertook profile cutting on a sub-contract basis. In a praiseworthy attempt to move up-market where margins were greater, it purchased a plasma profile cutting machine costing £10,000. In so doing, however, it had virtually used its overdraft facility and was dismayed to find that there was no possibility of it being increased. An example perhaps – but by no means an isolated one – of a failure to match borrowings to type of asset. In this case factoring provided a solution and the company is now going from strength to strength.

Are your best customers your worst enemies?



Your best customers could be the life and death of you. They demand prompt deliveries, yet seem to keep you waiting months before settling invoices. That means they are starving you of working capital. We can solve that problem.

We can supply the funds you need. Our factoring service guarantees an immediate payment on all your invoices, and gives 100% indemnity against loss through bad debts.

Because we're an organization totally independent from banks and other financial institutions, our prosperity relies on your prosperity. So you are always our number one interest.

Call us today and arrange a preliminary discussion with one of our senior executives who will explain our range of services. It will cost you nothing, but could be the most valuable meeting you ever had.

H+ HFactors

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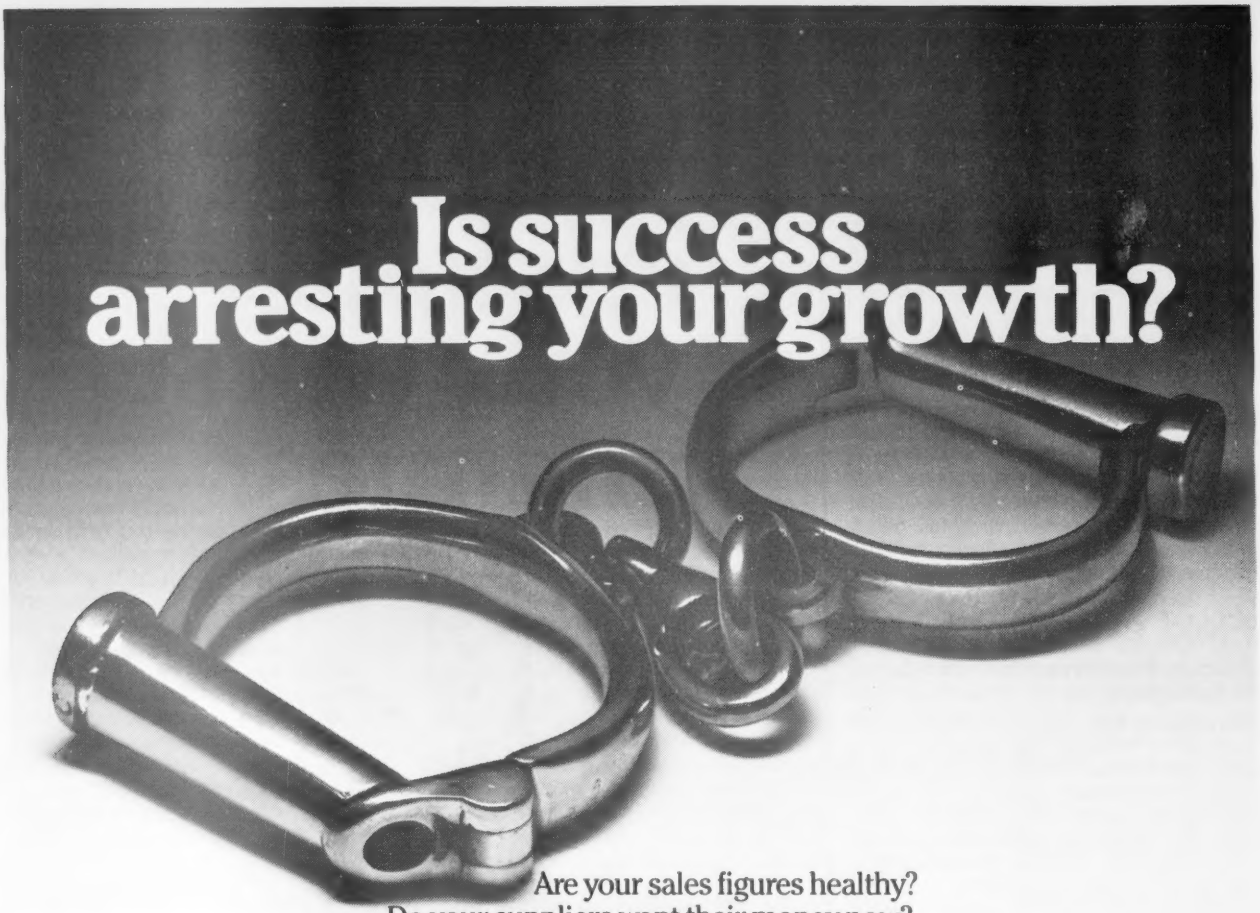
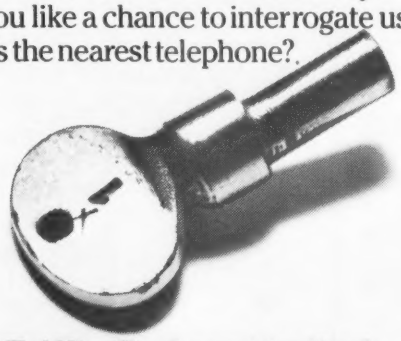
Tel: 0272 20298/9.

Is success arresting your growth?



Are your sales figures healthy?
Do your suppliers want their money now?
Do your best customers have custody of your money?
Are you ready for growth but only lack the finance?
Do you need working capital, expert guidance on credit control?
Do you really need such a hefty accounting overhead?
Would you like an even better credit status?
Do you know the name 'Griffin'?
Did you know that Griffin can release you?
Would you like a chance to interrogate us?
Then where's the nearest telephone?



Griffin Factors Limited
A SUBSIDIARY OF MIDLAND BANK LIMITED

Griffin Factors Limited, 21 Farncombe Road, Worthing, West Sussex, BN11 2BW. Telephone: (0903) 205181.
And offices in London, Birmingham, Bradford and Glasgow.

Continued from page 168.

Relocated New York menswear show takes off

From F. R. C. Thomson, British Trade Development Office, New York

Since their inception, the twice yearly menswear shows organised by the National Association of Men's Sportswear Buyers (Namsb) have been hotel-bound and have been regarded as catering to the lower end of the market. But now, starting with the March event, the show has moved to an open-booth format in a purpose built exhibition centre and a conscious effort has been made to improve the event's image.

Some of the increased traffic may have been prompted by curiousity, but is clear that many buyers who ignored the show in the past liked what they saw at the relocated show and will make attendance a regular feature of their future buying programmes. As a preliminary estimate – subject to audit – the organisers say that approximately 25 000 buyers registered.

Anticipating new interest in the show, and sharing in the gamble that attempts to upgrade the event would pay off, participation by British manufacturers was the strongest for many years, with many 'quality names' exhibiting for the first time, as part of a joint-venture organised by the Clothing Export Council of Great Britain and the British Overseas Trade Board.

Almost without exception, the British exhibitors reported heavy traffic and a satisfying level of order writing. Styled classic sweaters were particularly strong, as were sports outerwear.

The next Namsb show will take place again in the New York Coliseum from 28 to 31 October, when buying will be done for the spring and summer. British companies with local distributions able to sell autumn and winter lines *ex stock* could also find the show of value.

The March 1980 show will, however, be the real pointer to the direction Namsb will take in the future. We look forward to continuing to influence that direction.

A library for exporters

Trade and other economic statistics from almost every country in the world, including the UK, are available for reference in the Statistics and Market Intelligence Library at Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757 ext. 368/369, telex 886143 (DTI Export LDN). A modern well-equipped library of over 100 000 volumes, it has a public reading room equipped with microfiche readers and photocopying facilities. Among the documents available are foreign trade directories covering some 170 countries and selected trade fair catalogues. The library is open from 09.00 to 17.30, Monday to Friday (last passes for the building are issued at 17.15).

Sparkling success for British goods in Japan

From Robin Lavery, commercial department, British embassy, Tokyo

The success of the first jewellery, personal accessories and leathergoods exhibition at the British Export Marketing Centre at the end of March demonstrated again that Japan has recently taken a renewed interest in top-quality British consumer products – notably clothing, personal accessories and interior goods. Apart from business conducted at the exhibition, participating companies anticipate doubling their annual turnover in Japan within two years.

Brisk start

Eighteen British companies took part, led by John McConnell, export marketing executive of the British Jewellery and Giftware Federation, accompanied by M. J. Elliott, a member of the export council for the BJGF and sales director of W. A. Goold, a participating company. The exhibition got off to a brisk start with good attendance from the first day.

Ten companies had previously exhibited at the centre, the majority at the BJGF's jewellery and giftware exhibition in March 1977. Only four firms were new to Japan. Expectations among exhibitors were high, particularly as almost all had transacted business with Japanese buyers overseas or in previous visits to the market. Three companies reported that orders had been taken before the show opened.

Regular visitors

Most of the exhibitors of diamond and gem set jewellery are regular visitors and becoming well known by the local jewellery trade. Jacques Sabbagh of J. Sabbagh Ltd, dealers in precious and semi-precious stones exhibited in March 1977 and has visited Japan several times since. A newcomer, Mr I. Foster of Stephen Foster Jewellery, commented that while most of his company's exports were to west Europe, he could see that Japan was a most exciting market with great potential.

Fashion jewellery companies included B. E. Cook, a newcomer, and Attwood and Sawyer, established with local distributors for a number of years. Both were delighted with results. Ray Martin of Attwood and Sawyer explained that they had met wholesalers at the exhibition whom they would not otherwise have seen, and despite the company's experience in the market, the BEMC show had been of great value.

British leathergoods firms have been developing their market in Japan since their first exhibition at the BEMC in September 1976. It has not been easy, for European competitors, especially Italy, are well entrenched. Nonetheless, the four leathergoods participants are steadily making headway. Mr G. Ettinger, of G. Ettinger Ltd, said that despite French and Italian competition he could see that Japan would become his most important export market with a year or two.

Ground rules

The success of the exhibitors demonstrates the value of following the ground rules for Japan where adaptation of products to suit the market, paying frequent and regular visits and cultivating personal contacts with agents and customers are essential points. John McConnell commented that the exhibition was extremely successful, and confirmed that for many high-quality products there is an extremely good market, provided British companies were able to build strong working relationships with Japanese buyers. He added that no opportunity should be missed to promote exports to Japan.

Opportunities

Two opportunities are already on the horizon: an outward mission to be sponsored by the BJGF in September and the BEMC housewares/giftware exhibition sponsored by the Hardware Manufacturers Association, also in September. Details are available from the sponsoring organisations or Fairs and Promotions Branch and the Exports to Japan Unit of the BOTB, tel. 01-248 5757.

Keenly interested buyers evaluate the various gem-set jewellery on Eaton and Wrighton's stand at the British jewellery, giftware and leathergoods exhibition in Tokyo.

Statistics

The economy: selected indicators[1]

Series are seasonally adjusted except where shown otherwise

	Gross domestic product (average estimate)	Consumers' expenditure	Fixed capital expenditure			Changes in stocks				Balance of payments		
				of which			of which					
			Total	Manufacturing industry	Distributive and service industries excl. shipping	Total	Manufacturing industry	Wholesalers'	Retailers'	Current balance	Visible balance	Invisible balance
	at 1975 prices		at 1975 prices			at 1975 prices				at current prices		
Base of index Series in Stock level at end-1977	1975	£ million	£ million			£ million 34,469	19,995	4,540	3,181	£ million		
1973	103.3	65 586	21 609	3 504	4 674	2 983	1 336	432	624	−999	−2 383	1 384
1974	101.4	64 212	21 175	3 822	4 605	1 462	1 288	361	−180	−3 591	−5 235	1 644
1975	100.0	63 385	20 488	3 522	3 841	−1 625	−1 221	−249	−100	−1 843	−3 236	1 393
1976	102.9	63 540	20 395	3 345	3 926	260	316	131	13	−1 137	−3 601	2 464
1977	104.9	62 954	19 961	3 573	4 325	978	442	266	29	298	−1 744	2 042
1978	108.1	66 397	20 514	3 848	4 681	962	595	−15	333	254	−1 175	1 429
1976 2nd qtr	102.4	15 834	5 107	828	972	−74	−29	−10	−67	−328	−949	621
3rd qtr	103.3	15 934	5 177	849	1 005	163	99	81	46	−411	−1 136	725
4th qtr	104.2	16 007	4 955	856	1 014	259	260	17	27	−315	−966	651
1977 1st qtr	103.8	15 622	4 821	851	1 030	430	235	82	117	−428	−946	518
2nd qtr	104.5	15 551	5 010	879	1 044	293	97	179	4	−297	−779	482
3rd qtr	105.0	15 876	5 057	910	1 103	−70	−6	−80	−59	522	−3	525
4th qtr	106.5	15 905	5 073	932	1 149	325	116	85	−33	501	−16	517
1978 1st qtr	105.9	16 296	5 151	923	1 162	291	38	81	62	−341	−596	255
2nd qtr	108.4	16 487	5 161	963	1 173	280	272	−62	128	146	−173	319
3rd qtr	109.2	16 858	5 147	981	1 161	302	175	45	54	51	−367	418
4th qtr	108.8	16 756	5 055	982	1 184	89	111	−79	89	398	−39	437
1979 1st qtr		16 850										
% change last 2 qtrs on prev. 2 qtrs.	+1.7	+0.7	−1.1	+4.1	+0.4							
on a year earlier	+3.1	+4.4	+0.7	+6.6	+4.1							

	Industrial production		Personal expenditure		Prices and earnings					Labour (UK)			Visible trade (volume)	
	Total all industries	Total manufacturing industries	Retail sales	Cars: new registrations	Retail prices		Wholesale prices: all manufacturing industry		Average gross earnings of all employees (GB, all industries and services covered)	Unemployed excluding school leavers and adult students		Unfilled vacancies for adults	Export	Import
						% increase on a year earlier	basic materials and fuel used	manufactured products: home sales		mid-month count	% of total employees	mid-month count	On a balance of payment basis	
	at 1975 prices		at 1971 prices	monthly averages	(not seasonally adjusted)				(old series)				at 1975 prices	
Base of index £m in base year Series in	1975	1975	1971 16,296	thousands	Jan. 1974		1975	1975	Jan. 1970	thousands		thousands	1975 19,463	1975 22,699
1973	109.5	108.4	110.3	137.1	93.5	9.1	58.8	66.7	152.1	611.0	2.6	307.0	97.7	108.8
1974	105.1	106.5	109.0	102.8	108.5	16.0	86.8	81.8	179.1	599.7[2]	2.6[2]	302.7[2]	104.2	109.7
1975	100.0	100.0	106.7	97.2	134.8	24.2	100.0	100.0	226.6	929.0	3.9	150.0[2]	100.0	100.0
1976	102.0	101.4	106.5	104.7	157.1	16.5	127.0	117.3	261.9	1 269.8[2]	5.4[2]	120.4[2]	109.7	105.6
1977	105.8	102.8	103.6	107.1	182.0	15.8	145.6	140.5	288.5	1 378.1	5.8	155.6[2]	118.9	107.2
1978	109.7	103.6	109.2	130.1	197.1	8.3	144.6	153.3	330.2	1 375.6	5.8	210.3	122.9	112.6
1977 1st qtr	105.6	103.9	103.3	102	174.1	16.5	144.8	133.0	280.0	1 329.5	5.6	..	115.9	108.8
2nd qtr	105.5	102.4	102.4	104	181.9	17.4	148.8	139.6	285.3	1 340.6	5.6	157.7	117.7	110.6
3rd qtr	106.2	103.0	104.2	110	184.7	16.5	146.5	143.8	288.3	1 414.6	5.9	151.9	124.6	107.3
4th qtr	105.8	101.8	104.7	113	187.4	13.1	142.2	145.8	300.4	1 427.8	6.0	160.1	117.3	102.3
1978 1st qtr	107.0	102.2	106.4	128	190.6	9.5	140.2	149.2	310.9	1 409.4	5.9	187.7	119.6	113.5
2nd qtr	110.8	104.5	107.9	133	195.8	7.7	146.3	151.8	327.8	1 372.7	5.7	210.3	122.2	109.7
3rd qtr	111.5	105.1	110.7	133	199.2	7.8	144.9	154.8	335.7	1 380.5	5.8	213.0	124.8	114.9
4th qtr	109.7	102.5	111.7	127	202.6	8.1	147.1	157.3	346.4	1 339.7	5.6	230.3	124.8	112.3
1979 1st qtr			110.2 p	131	208.9	9.6				1 350.7	5.7	234.6		
1978 Apr	111.1	105.1	106.9	130	194.6	7.9	145.1	150.9	324.1	1 387.1	5.8	203.7	124.3	104.8
May	110.1	103.5	108.2	127	195.7	7.7	146.8	151.9	326.2	1 366.4	5.7	209.9	120.5	113.3
Jun	111.1	105.0	108.6	142	197.2	7.4	147.0	152.7	333.0	1 364.7	5.7	217.4	121.9	111.1
Jul	111.6	105.0	111.0	111	198.1	7.8	145.8	153.8	333.2	1 371.4	5.7	211.0	125.7	114.3
Aug	112.1	105.8	111.7	142	199.4	8.0	144.2	154.8	334.7	1 392.1	5.8	209.3	124.5	111.3
Sep	110.7	104.3	109.6	144	200.2	7.8	144.8	155.7	339.2	1 378.3	5.8	218.7	124.3	119.1
Oct	108.5	101.7	110.2	133	201.1	7.8	145.7	156.6	344.5	1 359.6	5.7	228.4	125.9	110.8
Nov	109.5	102.4	110.5	126	202.5	8.1	147.3	157.1	344.5	1 338.8	5.6	231.3	122.5	113.7
Dec	111.2	103.5	113.8	121	204.2	8.4	148.3	158.3	350.1	1 320.7	5.5	231.2	126.0	112.5
1979 Jan	103.0 p	93.4 p	109.6	121	207.2	9.3	150.8	160.0	344.7	1 339.1	5.6	235.9	113.1	107.3
Feb	110.4 p	103.8 p	110.4	117	208.9	9.6	152.0 p	161.7 p	355.4	1 362.5	5.7	230.9		
Mar			110½ p	156	210.6	9.8	153.8 p	162.9 p		1 350.4	5.7	237.0		
Apr										1 310.9 p	5.5	249.7 p		
% change latest 3 months on prev. 3 months	−1.3	−2.5	−1.3	+3.7	+3.1		+3.5	+2.7	+2.1	+0.6		+2.7	−3½	−2
on a year earlier	+1.2	−2.0	+3.6	+2.3	+9.6		+8.6	+8.3	+13.9	−4.1		+22.4	+5	+5½

p Provisional. e Estimate. [1] Including figures published on or before 27 April 1979. [2] Average of available months.

Inquiries: 01-215 3453

Retail sales: provisional estimate for March

Volume

The provisional estimate of the seasonally adjusted index of the volume of retail sales in March is 110½ (1971 = 100) suggesting that trade remained at about the same level as in February.

The response has been lower than normal because of postal delays and the estimate is therefore subject to a greater margin of uncertainty.

The volume of retail sales in the first quarter (which included the lorry drivers' dispute) was 1½ per cent lower than in the fourth quarter of last year.

Value

Based on non-seasonally adjusted data, the provisional estimate of the value of total sales in March was 12 per cent higher than in March 1978. In the first quarter of 1979, the average value of sales was 12 per cent higher than in the corresponding period of 1978.

Inquiries: Department of Trade, Economics and Statistics Division 6C, Room 351, Sanctuary Buildings, 20 Great Smith Street, London SW1P 3DB, tel. 01-215 3705.

Retail sales: volume and value

	Volume seasonally adjusted index (1971 = 100)		Value not seasonally adjusted – percentage change compared with a year earlier
1977		**1977**	
4th qtr	104.7	4th qtr	+13
1978		**1978**	
1st qtr	106.4	1st qtr	+13
2nd	107.9	2nd	+15
3rd	110.7	3rd	+14
4th	111.7	4th	+14
1979		**1979**	
1st qtr	110.2 p	1st qtr	+12 p
1977		**1977**	
Dec	106.9	Dec	+16
1978		**1978**	
Jan	105.3	Jan	+12
Feb	106.7	Feb	+13
Mar	107.2	Mar	+15
Dec	113.8	Dec	+14
1979		**1979**	
Jan	109.6	Jan	+13
Feb	110.4	Feb	+12
Mar	110½ p	Mar	+12 p

p Provisional.

Notes

The volume index is given to the nearest half per cent. The percentage increase in value compared with a year earlier is given to the nearest whole number.

Estimates are based on early returns to the monthly inquiry. These returns cover approaching one half, by turnover, of information available at the final stage. Over the last 12 months the average difference (ignoring sign) between provisional and final estimates was 0.5 per cent. However, as with all estimates based on partial data, caution must be exercised in interpreting a single month's figures.

When using the volume figures, it should be borne in mind that, when price increases are large, the various problems associated with revaluation of the value series to constant prices become more acute. Thus, the relative accuracy with which volume changes have been measured is likely to have been reduced in recent periods.

The value estimates are compiled inclusive of VAT, and will, therefore, reflect changes in the rates of VAT. The volume estimates, however, are not affected by these changes since the retail price indices used to 'deflate' the value data are themselves inclusive of VAT.

The seasonally adjusted series include, where appropriate, adjustments for the timing of holidays. For example, these adjustments include the effects of the Christmas and new year holidays and any annual 'sales' over this period. No adjustments are made to the non-seasonally adjusted data.

The final figures for March are due to be published in a press notice on Tuesday, 8 May.

Average earnings in February and basic rates of wages in March

Average earnings of employees in Great Britain are estimated to have risen by 14.9 per cent between February 1978 and February 1979. This estimate is based on the monthly index for the whole economy, covering in total about 21 million employees, which was introduced from January 1976. Recent figures are given in table 1.

Table 1 **Index of average earnings of employees in Great Britain**

Whole economy (new) series, not seasonally adjusted

	Index Jan 1976 = 100	Percentage increase over 12 months
1978		
January	121.5	9.5
February	122.7	10.5
March	125.0	10.4
April	127.2	12.4
May	129.4	12.6
June	133.1	15.4
July	133.6	14.2
August	131.7	13.9
September	134.2	15.1
October	135.2	14.7
November	136.1	13.3
December	138.0	13.3
1979		
January	135.7	11.7
February p	141.0	14.9

p Provisional.

In the production and certain other [1] industries, employing in total about 11 million employees, and covered by the older series index introduced from January 1963, earnings increased by about 14.1 per cent over the 12 months to February. Figures are given in table 2.

Table 2 **Index of average earnings in production industries and some services** [1]

Older series

		Seasonally adjusted		
	Index January 1970 = 100	Index January 1970 = 100	Percentage increase over previous month	Percentage increase over previous 12 months
1978				
July	338.0	333.2	0.1	16.3
August	332.8	334.7	0.4	15.9
September	339.6	339.2	1.4	16.2
October	345.6	344.5	1.5	16.5
November	347.9	344.5	0.0	14.4
December	351.2	350.1	1.6	15.1
1979				
January	344.4	344.7	−1.6	12.4
February p	354.7	355.4	3.1	14.1

p Provisional.

[1] Transport and communication (other than sea transport and postal services) and some miscellaneous services.

Indices of basic rates of wages

At the end of March 1979, nationally-negotiated basic weekly rates of wages of manual workers were on average 18.4 per cent higher than a year earlier. During March, the index of basic weekly rates remained unchanged at 282.6.

The indices only take account of changes in nationally-negotiated rates. The year-on-year increases consequently reflect that national rates for engineering workers remained unchanged from February 1976 until April 1978.

Table 3 **Indices of basic rates of wages**

	Indices, 31 July 1972 = 100		Percentage increase over previous 12 months	
	Basic weekly rates	Basic hourly rates	Basic weekly rates	Basic hourly rates
1978				
31 October	270.6	272.2	17.9	17.9
30 November	272.7	274.4	18.0	18.0
31 December	274.6	276.3	17.9	17.9
1979				
31 January	280.5	282.3	18.5	18.6
28 February	282.6	284.7	18.8	18.9
31 March	282.6	284.7	18.4	18.5

Inquiries: Department of Employment, Orphanage Road, Watford, Herts WD1 1PJ, tel. Watford 28500 ext. 319.

Unemployment and vacancies: April

The number of unemployed persons in Great Britain on 5 April was 1 279 808 representing 5.5 per cent of the total number of employees. This total includes 23 924 school leavers under 18 not yet employed.

The seasonally adjusted series shows that the number of unemployed in Great Britain excluding the school leavers was 1 251 500 (5.4 per cent of all employees), a decrease of 38 400 since 8 March. In the last three months there has been a decrease on average of 9500 a month.

Of the unemployed in Great Britain, 166 000 had been unemployed for four weeks or less. It is estimated that about 989 000 were unemployed for more than four weeks, and were aged under 60.

The average number joining the unemployment register in the three months ending March was 349 000 per month compared with 390 000 in the three months ending December and 388 000 in the three months ending September 1978. The average numbers leaving the register in these three periods were 347 000, 399 000 and 390 000 per month respectively.

Unemployment (on 5 April 1979)

	Great Britain		United Kingdom	
	Number	Change since Mar	Number	Change since Mar
Unemployed, excluding school leavers	1 255 884	−55 044	1 314 772	−56 331
School leavers	23 924	−4 954	25 823	−5 328
Total unemployed	1 279 808	−59 998	1 340 595	−61 659
(Percentage of all employees)	(5.5)	(−0.3)	(5.6)	(−0.3)
Seasonally adjusted Unemployed, excluding school leavers	1 251 500	−38 400	1 310 900	−39 500
(Percentage of all employees)	(5.4)	(−0.2)	(5.5)	(−0.2)

Inflow and outflow

The average inflow of vacancies in the three months ending March was 210 000 per month compared with 235 000 in the three months ending December and 233 000 in the three months ending September 1978. The average outflows in the three periods were 202 000, 232 000 and 231 000 per month respectively.

The unemployment figures exclude adult students aged 18 and over, who are registered for temporary employment during a vacation and who intend to return to full-time education when the new term begins. On 5 April, these numbered 55 447 in Great Britain and 56 136 in the United Kingdom.

Temporarily stopped

The unemployment figures do not include temporarily stopped workers – that is, those who had a job on the day of the count but were temporarily suspended from work on that day and were registered in order to claim benefits. These numbered 8952 in Great Britain and 9826 in the United Kingdom – representing a decrease on 8 March of 10 966 in Great Britain and a decrease of 10 596 in the United Kingdom.

In the week ending 10 February, 62 000 operatives in manufacturing industries in Great Britain were on short-time working. Of these, 18 000 were stood off for the whole week and 45 000 for part of the week. The figure compares with a total of 71 000 on short-time in the week ending 13 January. The short-time working figures include temporarily stopped workers.

Notified vacancies [1] (unfilled on 30 March 1979)

Notified to employment offices	248 635	+22 540	250 124	+22 792
Notified to careers offices	33 963	+6 490	34 249	+6 515
Seasonally adjusted Notified to employment offices	248 300	+12 500	249 700	+12 700

[1] Vacancy figures are not a measure of total vacancies, but only of those notified to employment offices and careers offices.

Notified vacancies

The number of vacancies notified to employment offices in Great Britain remaining unfilled on 30 March was 248 635, an increase of 22 540 since 2 March. The number of vacancies notified to careers offices was 33 963, an increase of 6490 since 2 March.

The seasonally adjusted series shows that the number of vacancies notified to employment offices in Great Britain was 248 300, an increase of 12 500 since 2 March 1979.

Index of industrial production for February

Provisional estimates suggest that industrial output was recovering in February from the depressed level caused by adverse weather conditions and transport disputes in January. The extent of the recovery is difficult to judge because estimates for January and February 1979 are less reliable than usual (see below)

The provisional estimates show that the average level of the all industries index in the period December 1978 to February 1979 was some 1½ per cent below the level in the preceding three months while the index for manufacturing industries fell by 2½ per cent.

The all-industries' index in the latest three months was about 1 per cent above its level in the same period a year ago; a similar comparison for manufacturing industries shows a fall of about 2 per cent.

Many of the series used in compiling the index of production, in particular for manufacturing industry, measure deliveries rather than production. Deliveries account for about 70 per cent of the index of production of manufacturing industry and may differ from production in a given month because of movements in stocks of finished goods and work in progress. Deliveries in January were more affected by the lorry drivers' dispute than production, suggesting that the index is likely to have understated the true level of output in January, while in February it is possible that output may likewise be overstated. Figures for industrial output adjusted for movements in stocks are available only quarterly and in arrears of the latest index data.

The provisional estimates for January and February are less reliable than usual because of the difficulties, at this stage, in allowing for the effects of disruption of industrial production. For some parts of the index, February figures have been estimated from past data together with a detailed examination of the series for which January figures were available. For engineering there were particularly difficult estimation problems. Actual figures for estimated series will be incorporated in a revised index when available.

The index includes a number of sectors of industry for which only quarterly data are available, representing 18 per cent of manufacturing activity and 69 per cent of other activity. For these sectors, the recorded index numbers

Index of industrial production: summary

Average 1975 = 100

				Manufacturing industries									
	Total all industries	All industries other than construction	Mining and quarrying	Total manufacturing industries	Food, drink and tobacco	Chemicals, coal and petroleum products	Metal manufacture	Engineering and allied industries	Textiles, leather and clothing	Other manufacturing	Construction	Gas, electricity and water
Order	II-XXI		II	III-XIX	III	IV-V	VI	VII-XII	XIII-XV	XVI-XIX	XX	XXI
Weights	1 000	810	41	697	77	66	47	298	67	142	182	80
1973	109.5	107.6	110.1	108.3	103.2	107.7	125.1	103.5	111.3	114.7	118.2	99.3
1974	105.1	105.0	89.9	106.5	102.5	110.6	114.6	104.6	103.6	109.5	105.8	99.2
1975	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976	102.0	102.7	125.8	101.4	102.7	111.3	106.9	97.0	100.9	103.9	98.6	102.9
1977	105.8	107.4	187.7	102.8	103.9	114.4	102.0	98.9	101.6	105.7	98.2	107.0
1978	109.7	110.7	233.5	103.6	105.6	115.4	100.7	99.2	101.2	108.3	105.3	109.9
1978 1st qtr	107.0	108.2	209.6	102.2	106.1	111.8	96.6	99.9	98.0	104.3	101.9	107.7
2nd	110.8	111.5	229.5	104.5	106.9	115.2	107.4	99.7	101.2	109.0	107.3	112.0
3rd	111.5	112.3	236.6	105.1	104.1	117.3	101.2	100.8	103.8	110.7	107.2	112.7
4th	109.7	110.8	258.2	102.5	105.3	117.3	97.6	96.4	101.7	109.2	105.0	107.2
1978 Jan	106.9	108.1	207	102.3	108	112	92	100	98	105		107
Feb	107.3	108.6	216	101.9	105	111	97	100	98	105	102	110
Mar	106.8	108.0	206	102.4	105	113	101	100	98	103		105
Apr	111.1	111.9	221	105.1	105	115	106	100	105	111		115
May	110.1	110.7	232	103.5	106	114	106	99	99	107	107	111
Jun	111.1	112.0	235	105.0	109	117	110	99	100	109		110
Jul	111.6	112.5	236	105.0	103	118	112	101	104	108		115
Aug	112.1	113.1	238	105.8	105	118	92	102	105	113	107	113
Sep	110.7	111.4	236	104.3	104	116	100	99	102	111		110
Oct	108.5	109.3	244	101.7	105	117	97	96	100	108		106
Nov	109.5	110.5	263	102.4	107	118	93	95	104	110	105	103
Dec	111.2	112.6	267	103.5	104	117	102	98	101	110		112
1979 Jan	103.0	105.1	280	93.4	103	96	77	91	95	96		117
Feb	110.4	114.2	282	103.8	106	118	101	101	100	105		117
Percentage change latest three months on:												
1. previous three months	−1.3	0.2	11.6	−2.5	−1.1	−5.6	−3.7	−0.2	−3.3	−5.3		8.0
2. a year earlier	1.2	2.3	33.3	−2.0	−1.6	−1.2	−2.5	−2.8	−0.4	−1.6		7.3

Index of industrial production: detailed analysis

Average 1975 = 100

	Mining and quarrying		Food, drink and tobacco		Chemicals, coal and petroleum products		Metal manufacture		Engineering and allied industries				
									Engineering				
	Coal mining	Other mining and quarrying	Food	Drink and tobacco	Coal and petroleum products	Chemicals and allied industries	Ferrous	Non-ferrous	Total engineering	Mechanical engineering	Instrument engineering	Electrical engineering	Shipbuilding and marine engineering
MLH	101	102-109	211-229	231-240	261-263	271-279	311-313	321-323	331-369	331-349	351-354	361-369	370
Weights	34	7	54	23	9	57	35	12	170	92	12	66	14
1973	103.3	141.6	106.0	96.3	120.6	105.8	127.8	116.9	98.4	97.2	92.4	101.3	95.4
1974	85.5	110.3	104.0	99.1	115.9	109.8	114.8	113.8	102.3	101.3	98.7	104.5	98.9
1975	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976	92.8	278.5	103.2	101.6	105.7	112.2	106.9	106.9	96.5	95.1	96.6	98.5	96.5
1977	90.1	638.7	105.1	101.2	102.7	116.2	99.8	108.7	97.3	93.2	98.7	102.7	93.3
1978	89.2	900.3	105.3	106.4	101.4	117.5	98.4	107.4	99.6	92.9	104.6	108.1	88.1
1978													
1st qtr	89.9	762.8	105.5	107.6	98.2	113.8	93.7	105.0	98.4	92.0	101.3	106.7	90.0
2nd	88.6	881.0	105.9	109.5	98.6	117.7	106.8	109.2	99.2	92.6	104.7	107.5	90.8
3rd	89.7	915.6	106.1	99.6	105.3	119.1	98.3	109.7	100.8	94.9	105.6	108.2	89.7
4th	88.6	1 041.9	103.8	108.8	103.7	119.4	94.9	105.8	100.1	92.0	107.0	110.2	81.9
1978													
Jan	89	752	109	107	97	114	88	103	98	92	100	106	89
Feb	90	796	103	109	95	113	94	104	98	92	101	107	91
Mar	91	741	105	107	102	114	99	108	99	92	102	107	90
Apr	90	828	103	111	98	118	103	114	99	92	104	107	88
May	87	902	107	106	99	116	106	106	99	93	105	108	90
Jun	89	912	108	112	99	119	111	108	100	93	105	108	94
Jul	90	912	106	98	107	120	112	112	101	95	105	108	91
Aug	89	925	107	100	106	120	85	112	101	95	105	108	92
Sep	90	911	106	101	103	118	99	105	101	95	106	109	86
Oct	88	968	103	110	105	119	95	103	100	93	106	109	85
Nov	90	1 066	105	112	101	121	90	102	100	92	107	110	87
Dec	88	1 092	104	104	104	119	99	112	100	91	108	112	74
1979													
Jan	88	1 168	102	105	99	96	72	91	91	na	na	na	89
Feb	87	1 186	104	110	106	120	101	99	100	na	na	na	90
Percentage change latest three months on:													
1. previous three months	−1.4	17.0	−0.9	−1.4	−0.1	−6.3	−4.1	−2.5	−3.0				−1.6
2. a year earlier	−1.7	52.6	−2.0	−0.7	4.6	−1.9	−2.1	−3.6	−0.6				−4.2

	Engineering and allied industries (continued)				Textiles, leather and clothing			Other manufacturing					
	Total vehicles	Motor vehicles	Other vehicles	Metal goods not elsewhere specified	Textiles	Leather, leather goods and fur	Clothing and footwear	Total bricks, pottery, glass, etc	Bricks, cement, etc	Pottery and glass	Timber, furniture, etc	Paper, printing and publishing	Other manufacturing industries
MLH	380-385	381	380, 382-385	390-399	411-429	431-433	441-450	461-469	461, 464-469	462,463	471-479	481-489	491-499
Weights	68	43	25	46	40	3	24	28	17	11	25	58	31
1973	113.3	118.8	103.5	110.1	117.1	107.1	102.1	113.7	120.7	103.5	118.9	115.7	110.2
1974	108.9	110.8	105.6	108.7	105.9	98.7	100.2	107.2	109.1	104.4	101.9	115.5	106.8
1975	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976	97.0	100.2	91.3	98.8	103.0	102.3	97.1	101.0	99.1	103.8	103.9	102.5	109.0
1977	100.9	107.2	89.6	104.0	100.9	97.1	103.2	99.7	93.7	108.5	97.6	106.9	115.4
1978	98.6	103.7	89.4	101.9	99.4	96.3	104.7	101.1	93.5	112.1	102.8	109.4	117.4
1978													
1st qtr	104.2	112.8	89.0	102.1	97.0	90.7	100.7	96.6	89.8	106.4	97.6	105.5	114.4
2nd	101.6	108.1	90.0	101.6	100.1	98.9	103.5	102.5	94.5	114.0	103.2	109.1	119.6
3rd	100.5	106.8	89.2	104.5	101.5	98.7	108.3	102.9	93.1	117.1	105.0	111.7	120.9
4th	88.0	87.2	89.6	99.4	99.3	96.8	106.4	102.3	96.4	110.8	105.4	111.2	114.8
1978													
Jan	106	115	89	102	97	91	100	97	90	108	97	105	118
Feb	103	111	89	102	98	91	100	97	89	108	97	106	116
Mar	104	113	89	102	96	91	102	95	90	103	99	106	109
Apr	104	111	90	105	104	99	106	106	96	120	106	109	121
May	103	110	90	98	98	99	101	100	93	110	101	108	117
Jun	99	104	90	102	98	99	103	102	94	113	103	110	121
Jul	100	106	89	104	100	99	112	101	92	114	103	108	116
Aug	105	114	89	108	104	99	108	104	93	119	106	114	127
Sep	97	101	89	102	101	99	105	104	95	119	106	113	119
Oct	86	84	89	98	99	97	103	102	96	110	103	109	114
Nov	81	76	90	102	100	97	110	102	97	110	105	114	114
Dec	97	101	90	98	99	97	107	103	97	112	108	111	117
1979													
Jan	93	95	89	90	92	97	100	85	86	84	93	97	108
Feb	103	112	89	102	96	97	105	100	90	115	102	104	115
Percentage change latest three months on:													
1. previous three months	11.2	17.8	−0.4	−3.9	−4.3	−0.4	−2.1	−6.4	−4.8	−8.3	−3.6	−7.1	−2.3
2. a year earlier	−5.8	−8.3	−0.2	−5.8	−2.3	5.2	2.0	−2.8	−1.7	−4.2	2.9	−2.1	−3.0

may overstate production in the early part of the first quarter of 1979 but understate production in the remainder of the quarter.

The index numbers in the tables are all seasonally adjusted, to remove annually recurring month variations due for example, to the incidence of holidays and other regular seasonal patterns of behaviour. The adjustments can only be derived from analysis of past data and may not be completely appropriate when holiday patterns change sharply.

Inquiries: 01-233 7239.

Manufacturers' stocks in February

It is estimated that manufacturers' stocks rose by about £40 million at 1975 prices seasonally adjusted, in February 1979. Stocks of materials and fuel and work in progress rose while stocks of finished goods fell.

Monthly figures from January 1978 are shown.

Stock changes

£ million, 1975 prices, seasonally adjusted

1978		August	+10
January	−10	September	+40
February	+120	October	+60
March	−70	November	+60
April	+190	December	−10
May	+160		
June	−80	**1979**	
July	+120	January	+10
		February	+40

Inquiries: 01-215 5215/3176.

Chemicals: high level of investment but slow growth in output in 1978

Output

The chemicals industry in the UK and, more generally, in western Europe and the USA is now experiencing more modest rates of growth than in the decade prior to the 'oil crisis' of 1973. Many commentators believe that this slower rate of growth is likely to continue through the next decade as the industry enters the more 'mature' phase of its industrial life.

The year on year increase in UK output in 1978 was 1 per cent. The industry started from a depressed level in the first quarter of the year but recovered sharply in the second and the continuing modest upward trend for the rest of the year was sufficient to show the fourth quarter index some 4 per cent up on that for the comparable period in 1977. Most sectors of the industry followed this pattern with the noteable exception of soap and detergents which showed significant growth in 1978. The synthetic rubber and dyestuffs and pigments industries on the other hand appear to have had a difficult time in 1978.

The industry continued to be affected by worldwide overcapacity for some products which resulted in artificially low prices, intensified competition and an increase in imports. More recently, uncertainty over supplies of feedstocks and the price of naphtha in particular have added to the anxieties of the industry. Given these and other uncertainties, the outlook for 1979 is for continuing modest growth.

Overseas trade

With exports at £4,500 million and imports at £3,100 million, the UK had a positive crude balance of trade of £1,400 million in 1978, about the same as in 1977.

The volume of exports increased by around 10 per cent compared with the large upsurge in imports of 18 per cent. Import penetration in turn increased from 28 per cent in 1977 to 32 per cent in 1978 based on the 1975 price series.

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Table 1 Index of production

Index numbers 1975 = 100, seasonally adjusted

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr	% change on last quarter: Previous quarter	% change on last quarter: Same quarter a year earlier
271	General chemicals	118.8	100.0	114.2	116.5	116.4	119.8	116.4	110.7	113.7	115.9	117.9	118.0	—	+7
271.1	Inorganic chemicals	122.9	100.0	111.1	113.0	112.1	116.5	112.7	106.6	107.5	114.7	114.0	112.0	−2	+5
271.2	*Organic chemicals*	*120.2*	*100.0*	*119.7*	*119.4*	*118.6*	*123.9*	*117.8*	*112.0*	*119.1*	*120.9*	*117.4*	*116.9*	—	+4
271.3	Other chemicals	113.9	100.0	111.2	116.4	117.7	118.6	118.1	112.7	113.4	111.9	121.7	124.0	+2	+10
272	Pharmaceutical chemicals and preparations	*98.3*	*100.0*	*110.0*	*115.1*	*118.5*	*111.7*	*118.5*	*116.5*	*112.0*	*122.0*	*121.8*	*118.2*	−3	+1
273	Toilet preparations	100.7	100.0	105.0	108.4	114.2	106.1	105.5	113.4	115.8	120.9	105.3	114.8	+9	+1
274	Paint	99.6	100.0	108.7	115.1	117.2	114.1	115.0	117.0	113.2	114.0	121.6	119.9	−1	+2
275	*Soap and detergents*	*105.5*	*100.0*	*107.1*	*110.9*	*120.9*	*112.4*	*108.8*	*109.8*	*113.3*	*123.6*	*120.7*	*125.8*	*+4*	*+15*
276.1	Synthetic resins and plastics materials	119.3	100.0	123.2	121.6	124.6	118.4	121.8	118.4	119.2	125.5	126.7	127.0	—	+7
276.2	Synthetic rubber	129.5	100.0	126.4	130.2	115.6	134.7	139.8	118.8	123.5	114.7	127.3	96.8	−24	−19
277	*Dyestuffs and pigments*	*118.5*	*100.0*	*110.2*	*111.2*	*104.8*	*116.1*	*108.7*	*106.4*	*107.7*	*102.9*	*100.7*	*108.0*	*+7*	*+2*
278	Fertilisers	104.8	100.0	104.6	115.3	114.2	117.0	112.0	119.3	110.4	112.5	116.0	118.0	+2	−1
279	Other chemical industries	100.2	100.0	110.3	118.3	120.9	114.5	120.6	118.0	115.5	119.1	124.2	124.2	—	+5
Order V	Chemical and allied industries	109.8	100.0	112.2	116.2	117.5	116.2	116.6	114.4	113.8	117.7	119.1	119.4	—	+4
	Total manufacturing industry	106.5	100.0	101.4	102.9	103.5	102.5	103.1	102.0	102.2	104.5	104.9	102.5	−2	+3

Table 2 Sales of principal products

£ million, 1975 prices, seasonally adjusted

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	3 098.8	2 601.4	3 000.7	3 045.6	3 039.0	788.2	759.0	715.4	746.8	760.7	766.0	765.5
271.1	Inorganic chemicals	753.8	613.4	681.3	693.1	687.6	179.9	173.7	161.6	164.9	175.9	174.9	171.9
271.2	Organic chemicals	1 536.7	1 278.4	1 530.3	1 526.5	1 516.2	397.2	377.0	353.5	380.8	386.4	375.3	373.7
271.3	Other chemicals	808.3	709.6	789.1	726.0	835.2	211.1	208.3	200.3	201.1	198.4	215.8	219.9
272	Pharmaceutical chemicals and preparations	859.3	874.2	961.6	1 006.2	1 035.9	243.5	259.2	256.1	244.8	266.6	266.2	258.3
273	Toilet preparations	356.5	354.0	371.7	383.8	404.3	94.2	93.1	99.8	102.5	107.0	93.2	101.6
274	Paint	401.5	403.2	438.2	464.0	472.5	115.5	115.5	118.3	114.2	114.9	122.6	120.8
275	Soap and detergents	408.8	387.5	415.0	429.7	468.5	108.9	106.2	105.3	109.9	119.7	117.0	121.9
276	Synthetic resins plastics materials and synthetic rubber	1 173.6	975.5	1 204.9	1 194.4	1 206.9	292.2	300.6	289.4	291.8	303.4	309.2	302.5
277	Dyestuffs and pigments	271.5	229.1	252.5	254.9	240.1	66.5	62.3	60.9	61.6	58.9	57.8	61.8
278	Fertilisers	363.3	346.6	362.6	399.7	395.9	101.4	97.2	103.4	95.7	97.5	100.5	102.2
279	Other chemical industries	840.2	837.1	920.8	988.8	1 007.9	240.0	251.5	247.4	249.7	252.3	248.3	257.6
Order V	Chemical and allied industries	7 773.5	7 008.6	7 928.0	8 167.1	8 271.0	2 050.4	2 044.6	1 996.0	2 017.0	2 081.0	2 080.8	2 092.2

Table 3 Imports of principal products of the chemical industry

£ million, cif current prices

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	865.9	818.3	1 077.9	1 334.6	1 558.5	332.9	352.5	308.1	364.9	384.8	385.1	423.7
271.1	Inorganic chemicals	165.9	172.9	240.7	266.4	299.9	70.6	72.6	59.2	69.8	80.4	71.6	78.1
271.2	Organic chemicals	503.2	398.2	577.5	697.5	786.1	173.9	182.7	159.8	193.7	193.4	186.2	212.8
271.3	Other chemicals	196.8	247.2	259.7	370.7	472.5	88.4	97.2	89.1	101.4	111.0	127.3	132.8
272	Pharmaceutical chemicals and preparations	110.7	115.2	167.6	203.6	230.2	52.3	51.3	46.6	54.2	56.3	57.4	62.3
273	Toilet preparations	21.2	25.3	31.2	45.5	51.6	12.7	12.1	10.0	10.5	12.3	14.1	14.7
274	Paint	14.8	13.9	21.2	27.0	33.6	7.0	6.9	6.4	7.7	9.1	8.0	8.8
275	Soap and detergents	24.4	17.4	23.8	30.4	41.0	7.8	8.3	6.8	9.3	8.3	9.8	13.6
276.1	Synthetic resins and plastics materials	340.5	243.8	432.3	519.8	602.7	130.1	130.4	125.1	145.9	151.9	150.0	154.9
276.2	Synthetic rubber	39.0	42.2	62.2	71.8	82.0	18.2	18.3	17.0	21.8	21.9	17.3	21.0
277	Dyestuffs and pigments	58.6	44.4	77.5	94.1	111.5	24.8	22.3	20.4	25.2	29.6	27.0	29.7
278	Fertilisers	57.0	55.1	60.5	69.5	76.0	16.5	17.9	16.7	20.9	20.5	15.7	18.9
279	Other chemical industries	113.4	121.6	176.8	234.0	300.1	55.3	65.7	56.1	73.1	75.1	76.6	75.3
Order V	Chemical and allied industries	1 645.5	1 497.2	2 131.0	2 630.3	3 087.1	657.6	685.7	613.2	733.5	769.8	761.0	822.8

Table 3a Imports of principal products of the chemical industry

£ million, 1975 prices, seasonally adjusted

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	930.4	818.3	918.4	982.1	1 199.6	249.1	261.1	228.6	277.3	300.3	298.7	323.3
271.1	Inorganic chemicals	198.5	172.9	197.5	212.0	266.7	52.9	59.6	50.5	62.3	66.9	66.9	70.6
271.2	Organic chemicals	507.5	398.2	496.6	522.2	643.7	135.0	139.0	117.3	145.0	153.7	157.5	187.5
271.3	Other chemicals	224.4	247.2	224.3	247.9	289.2	61.2	62.5	60.8	70.0	79.7	74.3	65.2
272	Pharmaceutical chemicals and preparations	143.4	115.2	148.6	157.3	154.0	41.3	38.7	35.0	36.4	37.6	38.0	42.0
273	Toilet preparations	22.3	25.3	25.5	33.7	38.8	8.9	8.3	7.9	7.9	8.7	10.3	11.9
274	Paint	17.1	13.9	18.1	20.9	24.7	5.1	5.5	5.1	5.9	6.3	6.0	6.5
275	Soap and detergents	24.7	17.4	20.8	21.6	32.6	5.4	5.9	4.8	6.9	6.1	8.3	11.3
276.1	Synthetic resins and plastics materials	354.3	243.8	356.6	376.2	442.0	91.6	94.1	95.6	104.5	108.3	111.0	118.2
276.2	Synthetic rubber	37.5	42.2	46.3	44.1	47.8	11.3	12.1	9.8	12.8	12.6	11.2	11.2
277	Dyestuffs and pigments	67.4	44.4	66.7	72.8	81.9	18.5	17.9	16.8	17.9	21.1	20.4	22.5
278	Fertilisers	73.1	55.1	64.7	70.9	70.3	16.3	19.8	18.8	17.1	18.7	16.1	18.4
279	Other chemical industries	132.9	121.6	148.4	171.8	209.5	41.1	47.3	44.4	48.8	52.4	51.3	57.0
Order V	Chemical and allied industries	1 803.1	1 497.2	1 814.1	1 951.4	2 301.2	488.6	510.7	466.8	535.5	572.1	571.3	622.3

Table 4 Exports of principal products of the chemical industry

£ million, fob current prices

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	1 011.9	952.2	1 413.9	1 807.8	2 014.4	460.1	495.6	439.0	452.1	525.9	502.1	534.3
271.1	*Inorganic chemicals*	139.1	139.7	179.2	224.2	246.4	58.7	56.6	54.0	53.1	66.9	59.5	66.8
271.2	Organic chemicals	553.3	461.5	704.9	832.1	937.5	201.1	214.2	205.7	219.7	238.0	228.6	251.3
271.3	Other chemicals	319.5	351.0	529.8	751.5	830.5	200.3	224.8	179.3	179.3	221.0	214.0	216.2
272	*Pharmaceutical chemicals and preparations*	287.0	347.4	423.7	518.8	617.3	125.4	137.6	139.4	146.3	160.6	154.1	156.3
273	Toilet preparations	46.7	57.3	82.9	125.1	150.6	30.8	33.2	34.7	33.1	40.9	37.4	39.2
274	Paint	46.4	55.3	74.0	101.8	114.3	26.7	26.7	25.8	27.1	29.7	28.2	29.3
275	*Soap and detergents*	71.8	80.0	110.2	142.4	150.7	36.9	35.1	37.9	35.0	40.5	36.4	38.8
276.1	Synthetic resins and plastics materials	329.1	314.0	471.2	565.3	593.6	149.1	140.6	138.4	136.5	156.3	138.7	162.1
276.2	Synthetic rubber	46.6	37.9	56.2	69.7	64.3	18.0	18.5	14.7	15.3	16.6	15.0	17.4
277	*Dyestuffs and pigments*	148.4	124.9	185.3	219.3	211.7	56.7	57.8	49.9	49.3	54.2	52.9	55.4
278	Fertilisers	46.4	53.4	51.1	60.6	57.9	15.4	6.6	13.6	17.1	14.2	9.5	17.1
279	Other chemical industries	234.7	286.2	344.3	460.4	510.5	122.6	112.5	105.3	123.8	142.1	123.5	121.0
Order V	Chemical and allied industries	2 269.0	2 308.6	3 212.8	4 071.2	4 485.4	1 041.7	1 064.2	998.5	1 035.5	1 181.0	1 097.8	1 171.0

Table 4a Exports of principal products of the chemical industry

£ million, fob 1975 prices, seasonally adjusted

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	1 275.0	952.2	1 253.5	1 454.1	1 678.2	350.8	394.6	371.7	387.4	412.7	420.6	457.5
271.1	*Inorganic chemicals*	169.1	139.7	158.4	185.1	208.9	46.1	48.5	46.5	43.7	53.6	54.9	56.7
271.2	Organic chemicals	671.7	461.5	633.1	671.1	829.5	158.7	174.4	173.2	192.7	203.9	205.9	227.0
271.3	Other chemicals	434.2	351.0	462.0	597.9	639.8	146.0	171.7	152.0	151.0	155.2	159.8	173.8
272	*Pharmaceutical chemicals and preparations*	359.1	347.4	372.5	400.4	424.7	97.3	105.0	101.7	105.5	109.2	105.9	104.1
273	Toilet preparations	58.5	57.3	72.6	98.5	109.0	23.7	25.6	25.9	25.0	28.8	27.1	28.1
274	Paint	53.3	55.3	64.1	77.6	84.6	19.4	20.6	19.3	20.6	21.1	21.0	21.9
275	*Soap and detergents*	87.4	80.0	96.6	110.6	111.3	27.2	28.2	26.8	27.3	28.5	28.4	27.2
276.1	Synthetic resins and plastics materials	361.0	314.0	414.1	437.7	472.3	108.0	115.1	108.2	110.9	115.3	117.2	128.9
276.2	Synthetic rubber	60.2	37.9	49.4	55.5	47.5	13.7	15.0	11.5	11.5	11.2	12.3	12.5
277	*Dyestuffs and pigments*	174.1	124.9	161.1	167.7	157.3	41.8	44.5	38.0	37.3	39.0	38.9	42.1
278	Fertilisers	105.3	53.4	60.2	64.3	57.7	17.2	12.8	14.9	12.3	15.0	14.9	15.5
279	Other chemical industries	304.6	286.2	298.4	344.7	347.9	83.9	88.1	85.2	82.8	90.5	86.5	88.1
Order V	*Chemical and allied industries*	2 838.5	2 308.6	2 842.5	3 211.1	3 490.5	783.0	849.5	803.2	820.5	871.3	872.8	925.9

Table 5 Unit value and volume index numbers: chemicals SITC (R) section 5 Overseas Trade Statistics basis

Index numbers 1975 = 100, seasonally adjusted

	1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
Import volume	123	100	122	131	158	128	141	126	145	151	155	180
Export volume	122	100	124	141	155	140	149	143	145	153	157	163
						Index numbers 1975 = 100, not seasonally adjusted						
Import unit value	91	100	120	137	144	137	139	140	140	144	144	147
Export unit value	81	100	114	128	130	128	129	130	128	130	131	131

Table 6 Price index numbers of output (home sales)

1975 = 100

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	78.9	100.0	120.2	138.8	145.2	138.2	141.4	141.1	142.5	143.3	145.9	149.2
271.1	Inorganic chemicals	71.5	100.0	119.8	140.1	154.0	138.9	144.0	145.0	149.2	153.3	155.1	158.5
271.2	Organic chemicals	82.6	100.0	120.8	136.1	139.3	136.2	137.7	137.0	136.9	137.4	139.4	143.4
272	Pharmaceutical chemicals and preparations												
	Pharmaceutical preparations	84.3	100.0	119.8	138.7	153.3	138.1	141.3	143.4	147.9	152.4	154.7	158.3
273	Toilet preparations	82.8	100.0	114.2	133.3	147.1	130.6	137.9	138.8	142.6	145.0	149.2	151.4
274	Paint	78.3	100.0	110.3	125.6	140.9	119.7	131.1	133.5	139.2	140.8	141.3	142.2
275	Soap and detergents	86.4	100.0	111.0	129.2	136.5	128.4	133.7	133.3	133.7	135.1	136.9	140.1
276.1	Synthetic resins and plastics materials	86.5	100.0	117.9	138.1	141.4	138.4	139.8	140.4	140.7	141.0	141.3	142.4
277	Dyestuffs and pigments	81.6	100.0	124.7	148.0	155.4	147.8	151.5	151.2	149.6	152.8	157.8	161.5
278	Fertilisers	81.5	100.0	105.9	122.1	139.7	119.4	123.8	127.1	139.5	138.3	138.5	142.5
279	Other chemical industries	79.5	100.0	113.7	131.1	144.7	128.8	133.4	137.8	141.0	143.3	145.6	149.0
Order V	Chemicals and allied industries	82.1	100.0	114.8	133.1	143.8	131.2	136.1	137.8	141.2	142.8	144.2	146.8
	Total manufacturing industry	81.8	100.0	117.3	140.5	153.3	139.6	143.8	145.8	149.2	151.8	154.8	157.3

Table 7 Price index numbers of materials and fuel purchased 1975 = 100

		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
Order V	Chemical and allied industries	88.6	100.0	122.1	146.3	152.7	148.5	148.2	148.4	149.0	153.4	153.2	155.3
	Total manufacturing industry	86.8	100.0	127.0	145.6	144.6	148.8	146.5	142.2	140.2	146.3	144.9	147.1

Table 8 Employees in employment: Great Britain Thousands – monthly averages

MLH		1974	1975	1976	1977	1978	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
271	General chemicals	134	133	133	135	136	135	136	136	136	136	137	137
272	Pharmaceutical chemicals and preparations	78	77	71	72	74	71	72	72	73	73	75	75
273	Toilet preparations	27	25	23	23	24	23	24	23	23	24	24	24
274	Paint	28	27	27	27	27	27	27	27	27	27	27	27
275	Soap and detergents	16	17	17	17	17	17	17	17	17	17	17	17
276	Synthetic resins, plastics and synthetic rubber	50	50	51	52	51	52	51	51	51	51	51	51
277	Dyestuffs and pigments	24	23	22	23	22	23	23	23	22	22	22	22
278	Fertilisers	12	12	12	11	11	11	11	11	11	11	11	11
279	Other chemical industries	68	67	67	69	69	69	69	69	69	69	69	69
Order V	Chemical and allied industries	436	430	422	428	431	427	430	430	428	429	433	433
	Total manufacturing industry	7 719	7 371	7 144	7 212	7 177	7 193	7 241	7 238	7 185	7 158	7 191	7 175

Table 9 Capital expenditure £ million

	Current prices not seasonally adjusted	1975 prices seasonally adjusted
1971	367.1	683.6
1972	281.1	492.2
1973	239.5	389.3
1974	339.3	440.1
1975	545.5	545.5
1976	649.7	556.0
1977	820.8	622.3
1978	1 078.3	743.8
1977		
2nd qtr	190.4	150.8
3rd	210.2	163.3
4th	249.4	166.2
1978		
1st qtr	227.4	171.8
2nd	246.0	176.9
3rd	279.3	198.4
4th	325.6	196.7

Prices

The cost of materials and fuel purchased by the industry rose by 4 per cent in 1978, a very significant reduction from the 20 per cent increase in 1977. Recent events however are likely to affect the situation in 1979 and it is unlikely that this low rate of increase will continue much longer.

Output prices (home sales) rose by 9 per cent in 1978, again a more modest increase than in 1977. There is usually a lag between changes in input prices and their resultant effect on output prices and the recent increases in the former are unlikely to filter through to the latter until later on in the year.

Investment

The volume of investment in the chemicals industry increased by 20 per cent in 1978, the largest increase since that in the peak year of 1970. Actual investment exceeded £1,000 million for the first time though in constant prices it was still slightly lower than in 1970.

The results of the latest investment intentions inquiry conducted by the Department of Industry point to a similar level of real investment in 1979, although the Chemical Industries Association are forecasting a further increase.

Inquiries: Mr A. D. Marshall, Department of Industry, Dean Bradley House, 52 Horseferry Road, London SW1P 2AG, tel. 01-212 6937.

Notes

The index of production measures net output at constant 1975 prices of all establishments classified to a minimum list heading.

In table 2 sales are shown at constant 1975 prices of those products which are regarded as characteristic or principal products of a minimum list heading. Sales of the products by establishments not classified to the minimum list heading are included.

The current-price figures in tables 3 and 4 are obtained from Overseas Trade Statistics by combining those trade headings which correspond as closely as possible with the principal products of each minimum list heading. The constant-price data are obtained by deflating the current-price data using appropriate average value indices. This procedure provides base weighted trade data at constant prices which are consistent with the data in table 2.

The unit value and volume index numbers shown in table 5 relate to standard international trade classification (revised) section 5 which does not cover precisely the same products as those which are regarded as principal products or order V of the standard industrial classification.

Engineering industries: indices of production up to January

The usual detailed table and commentary on the indices of production for the engineering sector is not being published this month. This is because these indices – based as they are upon information relating to deliveries rather than production as such – are not considered sufficiently reliable at present to warrant publication of the latest figures. The widespread disruption to transport caused by industrial disputes and extreme weather conditions cut deliveries back sharply in January; the effect on production, whilst considered less than for deliveries, is more difficult to quantify.

Publication of the more detailed figures will be resumed when sufficient information is available to allow acceptable estimates to be made.

Index numbers for the combined engineering industries including a provisional estimate for the latest three months are shown below.

Inquiries: On the article and the statistics: Miss L. John, Branch EcS3A, Department of Industry, Room 607, Dean Bradley House, 52 Horseferry Road, London SW1P 2 AG, tel. 01-212 5770. Requests for quarterly indices for past years: Miss L. Adamson, Branch 5, Central Statistical Office, Great George Street, London SW1P 3AG, tel. 01-233 7239.

1975 = 100

1976	1977	1978	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr	Nov 1978-Jan 1979 average	Per cent change Nov-Jan on previous 3 months
96.5	97.3	99.6	98.4	99.2	100.8	100.1	97.3	–3

National Income and Expenditure Blue Book 1978

National Income and Expenditure 1967–77, prepared by the Central Statistical Office, contains detailed estimates of national product, income and expenditure for the United Kingdom. The 1978 edition covers mainly the years 1967–77.

It contains information on personal income and expenditure, company income and its appropriation, public corporations, central and local government, investment and capital stock, output and expenditure at constant prices, now rebased on the year 1975, and other subjects. Definitions and detailed notes, which update **National Accounts Statistics: Sources and Methods** (HMSO 1968) are also included.

Price £4.95 (by post £5.20)

ISBN 0 11 630178 3

Investments by insurance companies and private sector pension funds: fourth quarter

This article gives figures for the fourth quarter 1978 transactions in financial assets by insurance companies and private sector pension funds. It also summarises investment by these institutions during 1978 as a whole.

Net investment by insurance companies amounted to £4.7 billion during 1978, compared to £3.6 billion in 1977. There was a substantial increase, amounting to £1.2 billion (41 per cent), between the two years in net investment by long-term insurance funds, but net investment by general funds was £0.1 billion (19 per cent) lower in 1978 than in 1977. As in previous years, the investment pattern of insurance companies was dominated by a continued and large movement into British government securities.

During 1978 net investment by private sector pension funds totalled £1.7 billion, an increase of £0.2 billion (15 per cent) over net investment in 1977. This percentage increase was lower than the increase during previous years. As with insurance companies, this increased net investment was dominated by the movement into British government securities.

Insurance companies: long-term funds

Net investment by long-term insurance funds amounted to £1,031 million in the fourth quarter of 1978, bringing the total of net investment during the year to £4,032 million.

Public sector securities accounted for net investment of £368 million in the fourth quarter. This represented 36 per cent of net investment during the quarter, a somewhat lower percentage than in previous quarters. As in the earlier quarters of 1978, most of this investment activity related to long-dated (over 15 years and undated) British government securities. During the year as a whole net investment in long-dated British government securities amount to £2,447 million. There was also net investment of £75 million in short-dated (up to 10 years to maturity) British government securities, but a net disinvestment of £90 million in British government securities with maturities of between 10 and 15 years. Net investment in local authority securities during 1978 amounted to £16 million.

During the fourth quarter, net investment in company securities amounted to £219 million, out of the year's total of £725 million invested in such securities. Ordinary shares and authorised unit trust units together accounted for net investment of £243 million during the fourth quarter, bringing the total investment in 1978 to £785 million. During the year as a whole there was a net investment of £22 million in preference shares, most of which occurred during the second quarter. There was a consistent pattern of disinvestment in debentures each quarter, giving a total disinvestment of £82 million during the year.

As in previous quarters, the major component of activity during the fourth quarter in other investment areas was the purchase of £182 million worth of land and property with a corresponding sales figure of £54 million. Net investment in loans and mortgages amounted to £67 million in the fourth quarter and UK house purchase loans accounted for 69 per cent of this total. There was an unusually high level of purchases of overseas government securities during the fourth quarter of 1978, giving a net investment in such securities of £39 million out of the year's net total of £45 million invested in this way. During 1978 net investment in land and property totalled £487 million, 31 per cent more than in 1977. Net acquisitions of UK house purchase loans during 1978 amounted to £69 million, substantially more than in 1976

Table 1 Investments of insurance companies: long-term funds

£ million

	Public sector securities [1]			Company securities [2]			Other investments [3]			Cash and short-term assets		Total net investment
	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Closing balance	Net investment	
1974	3 689	3 537	152	996	904	92	998	366	632	1 201	522	1 397
1975	4 880	3 677	1 203	1 337	1 004	333	966	518	448	950	−250	1 733
1976	6 200	4 649	1 551	1 230	1 030	200	1 005	651	354	930	−21	2 084
1977	8 795	6 851	1 944	1 595	1 157	438	923	587	336	1 075	145	2 863
1978	9 679	7 231	2 448	1 763	1 038	725	1 209	586	623	1 310	236	4 032
1977												
1st qtr	2 519	1 994	524	319	300	19	210	133	76	928	−2	618
2nd	1 579	1 170	408	367	259	108	200	136	65	938	10	529
3rd	2 298	1 815	483	396	296	101	271	157	113	1 038	100	797
4th	2 398	1 872	525	511	302	209	243	161	82	1 075	37	854
1978												
1st qtr	2 603	1 928	674	411	209	202	271	166	104	1 100	25	1 005
2nd	2 611	1 799	813	476	293	183	247	125	122	1 054	−45	1 072
3rd	2 264	1 670	594	435	314	121	294	131	163	1 100	46	923
4th	2 201	1 833	368	441	222	219	397	164	233	1 310	211	1 031

[1] British government and local authority securities. [2] Including authorised unit trust units. [3] Mortgages and loans, property, overseas government securities and other financial assets.
Figures given in this table have been rounded and totals do not always exactly equal the sums of their components.

Table 2 Investments of insurance companies: general funds

£ million

	Public sector securities [1]			Company securities [2]			Other investments [3]			Cash and short-term assets		Total net investment
	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Closing balance	Net investment	
1974	432	415	16	245	239	7	122	128	−6	818	347	364
1975	1 414	966	448	426	255	171	154	83	71	817	−1	689
1976	1 670	1 356	314	507	391	116	179	79	100	993	175	705
1977	3 123	2 682	441	586	384	202	223	97	126	989	−4	766
1978	2 569	2 316	253	588	503	85	317	148	169	1 107	118	624
1977												
1st qtr	904	787	117	115	90	25	47	23	24	903	−90	76
2nd	457	401	56	165	74	92	65	24	41	924	21	210
3rd	796	689	107	136	98	38	59	23	36	939	15	195
4th	966	805	161	171	123	48	53	27	25	989	−51	285
1978												
1st qtr	622	640	−18	120	122	−2	75	26	49	981	−8	22
2nd	606	496	110	134	77	57	72	36	36	960	−21	182
3rd	462	379	83	170	132	38	84	35	49	1 068	107	277
4th	879	801	78	164	172	−8	86	51	35	1 107	38	143

[1] British government and local authority securities. [2] Including authorised unit trust units. [3] Mortgages and loans, property, overseas government securities and other financial assets.
Figures given in this table have been rounded and totals do not always exactly equal the sums of their components.

Table 3 Investments of private sector pension funds £ million

	Public sector securities [1]			Company securities [2]			Other investments [3]			Cash and short-term assets (net) [4]		Total net investment
	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Purchases	Sales	Net investment	Closing balance	Net investment	
1974	1 047	947	100	695	625	70	204	86	118	809	449	737
1975	2 714	2 265	449	1 601	950	657	287	67	220	481	−328	993
1976	3 175	2 565	610	1 451	1 055	396	318	89	229	476	−4	1 232
1977	4 290	3 702	588	1 639	1 139	500	410	61	349	483	17	1 454
1978	2 653	1 430	723	1 550	990	560	375	71	304	633	84	1 671
1977												
1st qtr	1 365	1 091	274	382	292	91	68	10	58	473	−3	419
2nd	720	700	20	399	232	168	64	14	50	522	64	301
3rd	1 150	1 020	129	430	278	153	183	11	172	461	−57	396
4th	1 055	890	165	427	338	89	94	24	70	483	14	338
1978												
1st qtr	743	615	128	333	248	84	71	11	60	595	109	381
2nd	769	512	257	393	269	124	89	26	63	522	−74	370
3rd	528	345	183	448	268	179	73	13	60	537	−1	421
4th	613	458	155	377	205	172	142	20	122	633	50	499

[1] British government and local authority securities. [2] Including authorised unit trust units. Convertible debentures are excluded in 1977 only. [3] Mortgages and loans, property, overseas government securities and other financial assets. [4] Due to differences of coverage between successive periods net investment does not always equal difference between closing balances. Figures given in this table have been rounded and totals do not always exactly equal the sums of their components.

or 1977 but about the same as in 1975. A similar pattern arose with net acquisitions of loans on companies' policies, which amounted to £5 million in 1978. Net acquisitions of other mortgages and loans during 1978 totalled £23 million, 79 per cent of which arose during the fourth quarter. This compared with net realisations of such mortgages and loans in the previous three years.

There was an increase of £211 million in the total of cash and other short-term assets held at the end of the fourth quarter compared with the end of the previous quarter, bringing the total of such assets held to £1,310 million, an increase over previous periods. 62 per cent of this total was held in the form of cash in hand or with UK banks, and a further 15 per cent in UK local authority bills and temporary money.

Insurance companies: general funds

The general funds of insurance companies recorded total net investment of £143 million in the fourth quarter of 1978, a decrease compared to the previous two quarters. Total net investment by these funds in 1978 totalled £624 million.

Over half (£78 million) of the total net investment by general funds in the fourth quarter related to public sector securities. There was a net disinvestment of £31 million in short-dated (up to five years) British government securities, but a net investment in British government securities with more than five years to maturity and in UK local authority securities. During 1978 as a whole net investment in public sector securities amounted to £253 million, a decrease of 43 per cent compared to 1977.

There was a net disinvestment of £8 million in company securities during the fourth quarter, bringing the total net investment for 1978 to £85 million, a decrease of 58 per cent compared to 1977. During 1978 there was a net disinvestment of £42 million in ordinary shares, concentrated in the first and fourth quarters. There were steady patterns of net investment in preference shares, debentures and authorised unit trust units during the year giving totals of net investment of £41 million, £86 million and £1 million respectively.

Most of the activity during the fourth quarter in other investment areas related to overseas government securities. This continued the pattern of previous quarters and accounted for 59 per cent of the total of £169 million of net investment in other areas of activity during the year as a whole.

The amount of cash and other short-term assets held at the end of the fourth quarter of 1978 totalled £1,107 million, 4 per cent more than at the end of the previous quarter and 12 per cent more than at the end of 1977. 71 per cent of this total was held in the form of cash in hand and with UK banks and a further 10 per cent in UK local authority bills and temporary money.

More detail of the transactions of insurance companies' long-term and general funds will be published in the Business Monitor M5 for the fourth quarter of 1978.

Private sector pension funds

Activity by private sector pension funds resulted in total net investment of £499 million in the fourth quarter of 1978, 19 per cent more than in the previous quarter. During 1978 as a whole total net investment by these funds amounted to £1,671 million.

Most of the investment activity in the fourth quarter related to public sector securities, where acquisitions and realisations amounted to £613 million and £458 million. As in previous quarters most of this activity related to long-dated (over 15 years and undated) British government securities. Acquisitions and realisations of such securities amounted to £605 million and £448 million respectively, giving a net investment of £156 million. There was also net investment, amounting to £170 million in medium-dated British government securities (five to 15 years to maturity), but net disinvestments of £14 million and £1 million in short-dated British government securities and in UK local authority securities. This pattern is reflected in the total activity in public sector securities for 1978 as a whole, with total net investment in such securities amounting to £723 million.

Acquisitions and realisations of company securities were lower in the fourth quarter than in the previous two quarters of 1978, although net investment, at £172 million, was similar to that in the third quarter. Within this total there was net investment of £179 million in ordinary shares, of which 29 per cent related to investment in overseas companies' ordinary shares. There was net disinvestment in preference shares and debentures (£1 million and £7 million respectively) and net investment (£2 million) in authorised unit trust units during the fourth quarter. During the year as a whole, net investment in company securities amounted to £560 million. £454 million of this total related to net investment in UK companies' ordinary shares and £139 million to net investment in overseas companies' ordinary shares. Within this total there was also net disinvestment of £51 million in UK companies' debentures and net investment of £14 million in overseas companies' debentures. The only marked change compared to previous years was the increased amount of net investment in overseas companies' ordinary shares during 1978.

The main components of other investment activity during the fourth quarter were net investments of £45 million in overseas loans and mortgages, £39 million in land and property and £29 million in overseas government securities. This pattern was reflected in the figures for 1978 as a whole when net investment in areas other than public sector or company securities totalled £304 million. Within this total for 1978, £165 million of net investment related to land and property, £47 million to overseas loans and mortgages and £44 million to overseas government securities. Net investment in property unit trust units in 1978 totalled £22 million, less than a third of that in 1977.

The amount of cash and other short-term assets held by private sector pension funds at the end of the fourth quarter amounted to £633 million (net of borrowing), 18 per cent more than at the end of the previous quarter. Within this total £442 million was held in the form of cash in hand and with UK banks and £139 million in UK local authority bills and temporary money. During 1978 as a whole, the amount of cash and other short-term assets held increased by £84 million (net of borrowing). During the year borrowing increased by £142 million.

Public sector pension funds

Statistics of investments by local authority and other public sector pension funds are collected and compiled by the Central Statistical Office.

In order to obtain a full picture of the pension fund sector these should be added to those given above for private pension funds. The figures for public sector funds for the fourth quarter of 1978 will be published in table 8.15 of the April issue of *Financial Statistics*.

More details of the transactions of local authority and other public sector pension funds, and of private sector pension funds, will be published in Business Monitor M5 for the fourth quarter 1978.

Inquiries: Department of Trade, Economics and Statistics Division 6a, Room 349, Sanctuary Buildings, 20 Great Smith Street, London SW1P 3DB, tel. 01-215 3162.

Wholesale price indices in 1978

Output prices

The prices of the products of manufacturing industry rose at a lower rate in 1978 than in any year since 1972. The price index for all manufactured products rose by 8¼ per cent in the twelve months ending December 1978 compared with increases of 15¼ per cent and 18 per cent in 1977 and 1976 respectively.

All sectors of industry showed smaller price rises in 1978 than in 1977. Prices for the output of both the food manufacturing industries, and manufacturing industries other than those in the food, drink and tobacco sector, rose 8½ per cent in 1978 compared with increases in 1977 of 17¾ per cent and 14 per cent respectively.

Following the increase of 19½ per cent in 1977 the output of the vehicles industry again showed the largest price rises in 1978 with a figure of 12¼ per cent. This increase was also shown by the metal goods industries index. For the second year running, the paper industries index registered the smallest increase, 5¼ per cent in 1978.

Input prices

The index of materials and fuel purchased by manufacturing industry rose by 5¼ per cent in 1978 compared with a rise of 1½ per cent in the previous twelve months.

Lower crude oil prices, resulting from an overall 7 per cent appreciation in the value of sterling during 1978, restricted the increase in the index of materials purchases by manufacturing industries other than the food, drink and tobacco industries to 2¼ per cent. There were higher prices for a number of materials, particularly imported iron and steel, hides and skins, mohair and cobalt.

The index for materials purchased by the food manufacturing industries rose by 9¼ per cent in 1978 compared with the previous year's 5½ per cent. Prices of home-produced materials increased by 12 per cent whilst prices of imported materials rose by 6½ per cent.

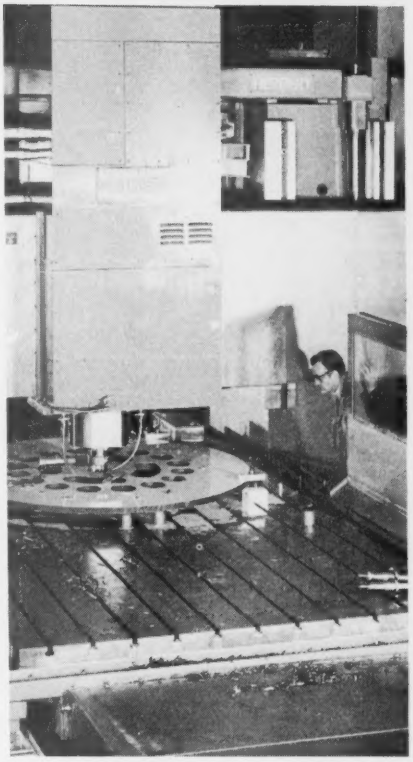
The price index for coal, gas and electricity showed a significantly lower rise in 1978 than in the previous year. The 7 per cent increase (compared with a 15¼ per cent rise during 1977) was the result of prices increases for coal and electricity in the first half of the year.

As to the indices of materials and fuel purchased by individual sectors of industry, the largest increase shown during 1978 was the 11½ per cent rise in the non-ferrous metals industry index. Higher prices for cobalt and, to a lesser extent, copper made the most significant contribution.

The indices for the shipbuilding and marine engineering industries and the mechanical engineering industry were the only other indices which rose by 10 per cent or more.

Following a fall of 6½ per cent in 1977, the 3 per cent rise in the index for the paper industries was the smallest sector increase in 1978.

The wide variation in movements of the input indices reflects the relative importance and differing price movements of their imported commodities.



Metal cutting machine tools: see table 3 – mechanical engineering.

Table 1 Price index numbers of materials and fuel purchased

1975 = 100

1968 SIC Orders or MLH Numbers		Annual averages					Percentage change			
		1974	1975	1976	1977	1978	1974-75	1975-76	1976-77	1977-78
Orders III to XIX	Materials and fuel purchased by manufacturing industry:	86.8	100.0	127.0	145.6	144.6	+15.2	+27.0	+14.6	−0.7
	Materials [1]	88.3	100.0	128.2	146.6	143.8	+13.2	+28.2	+14.4	−1.9
	Coal (except for carbonising), gas and electricity	75.4	100.0	117.5	138.1	151.1	+32.6	+17.5	+17.5	+9.4
Orders IV to XIX	Materials and fuel purchased by manufacturing industry, other than food, drink and tobacco manufacturing industries	86.8	100.0	126.7	141.8	139.0	+15.2	+26.7	+11.9	−2.0
	Materials [1]	89.0	100.0	128.5	142.5	136.6	+12.4	+28.5	+10.9	−4.1
Order III	Materials and fuel purchased by the food, drink and tobacco manufacturing industries	85.0	100.0	124.4	149.2	155.5	+17.6	+24.4	+19.9	+4.2
Materials and fuels purchased by selected broad sectors of industry										
211 to 229	Food manufacturing industries	85.1	100.0	125.7	152.3	157.2	+17.5	+25.7	+21.2	+3.2
	Materials	85.3	100.0	126.0	152.5	157.3	+17.2	+26.0	+21.0	+3.1
	Fuel [2]	80.1	100.0	120.0	147.1	155.0	+24.8	+20.0	+22.6	+5.4
211 to 229 (excluding MLH 219)	Food manufacturing industries (excluding animal and poultry foods)	81.6	100.0	124.3	151.7	157.2	+22.5	+24.3	+22.0	+3.6
Order V	Chemicals and allied industries	88.6	100.0	122.1	146.3	152.7	+12.9	+22.1	+19.8	+4.4
311 and 312	Steel industries	78.6	100.0	123.9	140.3	145.6	+27.2	+23.9	+13.2	+3.8
321 to 323	Non-ferrous metals industry	111.2	100.0	129.2	143.5	145.0	−10.1	+29.2	+11.1	+1.0
Order VII (excluding MLH 342)	Mechanical engineering industries	79.2	100.0	121.0	140.2	154.0	+26.3	+21.0	+15.9	+9.8
Order IX	Electrical engineering industries	92.4	100.0	122.6	140.3	149.5	+8.2	+22.6	+14.4	+6.6
Order X	Shipbuilding and marine engineering industries	80.7	100.0	120.0	140.0	157.2	+23.9	+20.0	+16.7	+12.3
Order XII	Metal goods industries	84.0	100.0	123.2	142.5	153.7	+19.0	+23.2	+15.7	+7.9
Order XIII	Textile industries	89.3	100.0	124.2	142.1	145.5	+12.0	+24.2	+14.4	+2.4
Order XV	Clothing and footwear industries	91.3	100.0	115.5	134.4	143.5	+9.5	+15.5	+16.4	+6.8
461, 464 and 469	Bricks, cement etc, industries	77.6	100.0	119.1	141.7	153.3	+28.9	+19.1	+19.0	+8.2
462 and 463	Pottery and glass industries	78.9	100.0	120.0	146.2	159.3	+26.7	+20.0	+21.8	+9.0
Order XVII	Timber industries	99.2	100.0	124.7	149.3	149.3	+0.8	+24.7	+19.7	—
481 to 484	Paper industries	79.9	100.0	119.1	130.3	120.8	+25.2	+19.1	+9.4	−7.3
Order XX	Construction materials	83.6	100.0	122.4	145.9	158.0	+19.6	+22.4	+19.2	+8.3
Part of Order XX	House building materials	84.7	100.0	122.7	146.4	157.9	+18.1	+22.7	+19.3	+7.9

[1] Includes crude oil and coal for carbonising. [2] Includes petroleum products.

Table 1a Price index numbers of materials and fuel purchased by selected sectors of industry

1975 = 100

1968 SIC		Annual averages					Percentage change			
		1974	1975	1976	1977	1978	1974-75	1975-76	1976-77	1977-78
361	Electrical machinery industry	84.3	100.0	119.8	138.6	150.8	+18.6	+19.8	+15.7	+8.8
362	Insulated wires and cables industry	109.9	100.0	127.4	140.9	143.5	−9.0	+27.4	+10.6	+1.8
364	Radio and electronic components industry	85.1	100.0	118.8	138.5	150.0	+17.5	+18.8	+16.6	+8.3
368	Domestic appliances industry	82.8	100.0	119.5	140.9	153.8	+20.8	+19.5	+17.9	+9.2
369	Electrical goods industries n.e.s.	86.5	100.0	121.0	140.9	151.5	+15.6	+21.0	+16.4	+7.5
381	Motor vehicle industry	80.4	100.0	120.7	140.6	154.0	+24.4	+20.7	+16.5	+9.5
411	Man-made fibres industry	83.0	100.0	119.8	135.4	137.3	+20.5	+19.8	+13.0	+1.4
414	Woollen and worsted industry	93.8	100.0	131.4	142.0	150.5	+6.6	+31.4	+8.1	+6.0
422/1	Household textiles and handkerchiefs industry	95.7	100.0	120.9	140.3	145.2	+4.5	+20.9	+16.0	+3.5
450	Footwear industry	90.3	100.0	118.2	133.3	141.7	+10.7	+18.2	+12.8	+6.3
481	Paper and board making industry	80.0	100.0	120.6	131.1	118.7	+25.0	+20.6	+8.7	−9.5

Table 2 Price index numbers of output (home sales)

1975 = 100

1968 SIC Orders or MLH numbers		Annual averages					Percentage change			
		1974	1975	1976	1977	1978	1974-75	1975-76	1976-77	1977-78
Orders III to XIX	Output of manufactured products	81.9	100.0	117.3	140.5	153.3	+22.1	+17.3	+19.8	+9.1
Orders IV to XIX	Products of manufacturing industries other than food, drink and tobacco manufacturing industries	82.2	100.0	116.9	138.0	150.9	+21.7	+16.9	+18.0	+9.3
	Output of selected broad sectors of industry									
211 to 229	Food manufacturing industries	82.8	100.0	118.6	148.2	161.7	+20.8	+18.6	+25.0	+9.1
211 to 229 (excluding MLH 219)	Food manufacturing industries (excluding animal and poultry foods)	80.4	100.0	117.9	148.1	163.5	+24.4	+17.9	+25.6	+10.4
Order V	Chemicals and allied industries	82.1	100.0	114.8	133.1	143.7	+21.8	+14.8	+15.9	+8.0
Order VI	Metal manufacturing	85.1	100.0	122.2	143.8	154.9	+17.5	+22.2	+17.7	+7.7
311 and 312	Steel industries	78.1	100.0	120.0	141.4	154.7	+28.0	+20.0	+17.8	+9.4
Orders VII to XII	Engineering and allied industries	80.4	100.0	116.9	136.8	152.9	+24.4	+16.9	+17.0	+11.8
Order VII (excluding MLH 342)	Mechanical engineering	79.3	100.0	117.6	136.7	152.8	+26.1	+17.6	+16.2	+11.8
Order VIII	Instrument engineering	81.1	100.0	117.1	133.7	148.8	+23.3	+17.1	+14.2	+11.3
Order IX	Electrical engineering	83.7	100.0	115.8	131.7	144.0	+19.5	+15.8	+13.7	+9.3
Order XI (excluding MLH 383)	Vehicles	76.9	100.0	117.0	142.9	162.8	+30.0	+17.0	+22.1	+13.9
Order XII	Metal goods industries n.e.s.	82.4	100.0	118.7	140.0	157.6	+21.4	+18.7	+17.9	+12.6
Order XIII	Textile industries	90.5	100.0	115.3	135.6	147.2	+10.5	+15.3	+17.6	+8.6
Order XV	Clothing and footwear	87.1	100.0	113.0	128.7	142.9	+14.8	+13.0	+13.9	+11.0
441 to 445 and 449	Made-up clothing	87.3	100.0	113.0	127.6	141.5	+14.5	+13.0	+12.9	+10.9
461, 464 and 469	Bricks, cement etc, industries	75.1	100.0	123.7	148.9	167.5	+33.2	+23.7	+20.4	+12.5
462 and 463	Pottery and glass industries	76.2	100.0	117.5	139.5	157.3	+31.2	+17.5	+18.7	+12.8
Order XVII	Timber industries	89.1	100.0	113.5	137.4	147.6	+12.2	+13.5	+21.1	+7.4
481 to 484	Paper industries	77.6	100.0	111.9	129.1	134.6	+28.9	+11.9	+15.4	+4.3

Notes on wholesale price index numbers

1975=100

1 The index numbers are calculated from the price movements of about 11 000 closely defined materials and products typical of goods purchased and manufactured by United Kingdom manufacturing industry.

2 Prices collected refer to quotes for current orders. For some goods the time lag between placing of order and date of delivery may be lengthy.

3 Prices obtained for UK-produced goods may be on an ex-works or delivered basis according to the practice in the trade concerned. Where a producer supplies ex-works and also delivers, the more usual trade practice is generally the one for which quotes are provided. Prices of imported goods are measured as closely as possible to a delivered basis.

4 Contributors provide prices monthly together with the date any price change becomes effective; this enables the average for the month to be calculated. The monthly indices relate to the average prices for the month; the full effect of a price change within a month will therefore only be reflected in the index for the following month.

5 When an item ceases to be available or its price movement is considered to be no longer representative it is necessary to remove it from the index. An adjustment is made to the new index level to maintain comparability with that of the preceding series.

6 When an item is modified or a replacement item is added to the index an adjustment is also made in the calculation of the index numbers to account for such differences in order to maintain comparability. Where price information for these items is collected from the manufacturer the adjustment is made after consultation with him.

7 Prices for these closely defined items are combined into index numbers of products manufactured in the UK or commodities wholly or mainly imported.

8 For calculation purposes the formula is:

$$\frac{100\ \Sigma[(qb\ pr)\ pi/pr]}{\Sigma\ qb\ pr}$$

where p and q are price and quantity respectively and b, r and i denote respectively the base year, reference year and any period. This resolves to a more familiar form of the Laspeyre formula:

$$\frac{100\ \Sigma\ qbpi}{\Sigma\ qbpr}$$

The quantity information used as weights relates to 1974 so that the index numbers express the cost of a 1974 'basket of goods' as a percentage of what the same basket cost in 1975.

9 The weights have been derived from the quarterly production inquiries and the purchases inquiry for 1974 supplemented by the overseas trade accounts, information supplied by trade associations and various other sources.

10 In compiling the index numbers of materials and fuel purchased and those of the output of sectors of industry, net weights are used, ie transactions between undertakings within the same sector are excluded. For example steel is included in the index for all manufactured products only to the extent that it is sold outside manufacturing such as to the construction industries; steel sold within the manufacturing sector is excluded. However sales of capital goods are all treated as sales outside manufacturing industry in accordance with national income accounting practice which treats capital formation as a separate sector. This means that indices at higher levels of aggregation are not averages of their components.

11 Product descriptions of the index numbers generally correspond to principal products (or groups of principal products) of an industry as defined by the quarterly production inquiries. The value on which the weight for a principal product is based includes the value of sales of that product by establishments classified to other census industries.

12 All the index numbers are compiled exclusive of value added tax and, before its abolition, of purchase tax. Revenue duties on cigarettes and manufactured tobacco, alcoholic liquor, matches and mechanical lighters are included. The duty on hydrocarbon oils is excluded from output price series that cover these products (unless specifically noted to the contrary) but is included in series for materials and fuel purchases by sectors of industry.

13 The value of goods for which no price information is available is imputed to price series which may be expected to move similarly.

14 For the index numbers of materials and fuel purchased by manufacturing industry (tables 1 and 1a) an allowance is made for changes in the prices of imported goods where they account for a substantial share of the total supplies to industry of an individual product. Price changes for imported supplies and home-produced supplies of that product are calculated separately and then combined in a way that allows for changes in proportion between them.

15 Firm and provisional indices, at all levels of aggregation, generally include imputation for items for which there is no current price information. Indices for the latest months are held provisional, but additional months will be held provisional for those indices where there are insufficient returns to allow accurate imputation.

16 Any index values which are calculated on very few returns and are therefore subject to possible major revisions will be marked with a suffix **e**. This will normally apply to first provisional indices of some series in tables 3 and 4.

17 To facilitate further calculation the index numbers are in most cases given to one decimal place but this does not imply that the index numbers hold this degree of accuracy. Revisions to firm index numbers will only be made if they are significant. Consequent revisions to annual averages will be published in the next annual article.

18 Details of the constituent items and weights used in the construction of the index numbers in tables 1 and 2 may be obtained on request.

19 The 1974-based series of wholesale price indices, reference year 1975, was introduced in *Trade and Industry*, 22 September 1978. Previously the wholesale price index was based on 1968 with the reference year 1970. This series was introduced in *Trade and Industry*, 21 June 1973. Other articles of particular relevance to the development of wholesale price indices appeared in the Board of Trade Journal, 21 February 1969, 21 March 1958 and 13 February 1959, and in *Economic Trends*, September 1958.

Letters to the editor

Letters to the editor should be addressed to the Editor, *Trade and Industry*, Eighth floor, 1 Victoria Street, London SW1H 0ET, and *not* to HMSO.

Table 3 Commodities produced in the United Kingdom

1975 = 100

1968 SIC		Annual averages 1974	1975	1976	1977	1978
II	**Mining and quarrying**					
101	**Coal**	64.2	100.0	117.9	136.1	150.3
102	**Stone and slate quarrying and mining**	73.1	100.0	126.1	154.1	170.9
	Stone quarrying and mining					
	Limestone and dolomite	73.3	100.0	128.8	161.6	179.3
	Uncoated limestone roadstone and aggregates	72.1	100.0	124.4	149.4	165.0
	Coated limestone roadstone	77.9	100.0	130.7	158.8	172.4
	Granite	72.5	100.0	121.3	141.1	155.3
	Granite and other chippings, aggregates and roadstone	76.5	100.0	116.6	132.0	150.0
	Granite and other chippings	73.9	100.0	120.3	136.1	150.6
	Coated granite and whinstone roadstone	69.9	100.0	124.4	147.1	158.9
	Slate quarrying and mining					
	Roofing slates	75.1	100.0	128.6	161.4	196.4
103	**Chalk, clay, sand and gravel extraction**	76.1	100.0	123.5	151.8	175.0
	Sand and gravel (uncoated)	77.5	100.0	131.1	171.8	204.2
	Sand and gravel (ex-pit or works)	77.8	100.0	131.5	172.6	205.2
	Sand and gravel (delivered)	82.8	100.0	122.0	153.4	180.1
	Clay, brick, earth, marl and shale					
	China clay	74.6	100.0	114.6	128.8	141.4
109	**Other mining and quarrying**	77.8	100.0	126.5	156.3	176.8
109/3	**Salt**	80.3	100.0	133.6	169.2	193.0
III	**Food, drink and tobacco**					
231	**Brewing and malting**	77.2	100.0	119.5	139.0	148.3
240	**Tobacco**	77.1	100.0	116.2	145.9	158.1
IV	**Coal and petroleum products**					
261	**Coke ovens and manufactured fuel**					
	Foundry coke	61.8	100.0	118.0	137.0	150.0
262	**Mineral oil refining**					
	Motor spirit (including duty) [1]	84.6	100.0	117.7	133.3	130.9
	Gas/diesel oil (including duty) [1]	90.2	100.0	127.7	161.9	166.0
	Gas oil fuel (including duty) [1]	88.6	100.0	128.2	164.6	168.6
	Derv (including duty) [1]	93.7	100.0	126.6	156.0	160.3
	Medium fuel oil (950 seconds including duty) [1]	81.6	100.0	124.1	165.5	169.5
V	**Chemicals and allied industries**					
271	**General chemicals**	78.9	100.0	120.2	138.8	145.5
271/1	**Inorganic chemicals**	71.5	100.0	119.8	140.1	154.0
	Inorganic acids and oxygen compounds of non-metals	68.4	100.0	116.9	126.3	133.6
	Metallic oxides, hydroxides, peroxides and other inorganic bases	73.7	100.0	117.3	134.4	154.1
	Metallic salts and peroxy salts of inorganic acids	68.1	100.0	123.3	144.0	155.7
	Soda ash	67.7	100.0	128.9	155.0	170.7
	Metallic salts and peroxy salts of inorganic acids-other than soda ash	68.2	100.0	121.7	141.1	151.8
271/2	**Organic chemicals**	82.6	100.0	120.8	136.1	139.3
	Hydrocarbons other than products of coal tar etc	91.6	100.0	122.7	132.8	130.9
	Halogenated, sulphonated, nitrated or nitrosated derivatives of hydrocarbons	79.6	100.0	123.3	145.2	153.4
	Alcohols, phenols and pheno-alcohols	85.8	100.0	119.2	136.8	130.5
	Nitrogen function compounds	74.8	100.0	111.4	126.0	138.5
271/3	**Other chemicals**					
	Bleaching materials	75.3	100.0	130.5	157.5	178.5
	Plasticisers, mixed or unmixed	85.5	100.0	114.6	127.6	128.6
272	**Pharmaceutical chemicals and preparations**					
	Pharamaceutical chemicals					
	—central nervous system	77.0	100.0	126.3	151.1	170.1
	Pharmaceutical preparations	84.3	100.0	119.8	138.7	153.3
	—central nervous system	83.3	100.0	127.4	154.0	172.6
	Anaesthetics	95.0	100.0	117.0	134.7	143.3
	Analgesics	79.2	100.0	120.0	142.2	163.8
	Psycho analeptics	88.0	100.0	114.7	150.6	179.3
	—cardiovascular system	78.8	100.0	129.1	161.2	171.0
	Plain hypotensives	83.3	100.0	129.5	167.6	170.8
	—respiratory system	76.6	100.0	130.9	156.2	175.1
	Cough and cold preparations	79.7	100.0	140.8	163.5	175.8
	—alimentary tract and nutrition	81.9	100.0	119.9	136.7	143.6
	—dermatologicals	75.9	100.0	117.7	128.8	150.6
	—general anti-infectives					
	Antibiotics	94.6	100.0	109.0	117.1	126.6
	Penicillins	92.6	100.0	116.5	130.6	150.1
273	**Toilet preparations**	82.8	100.0	114.2	133.3	147.0
	—specifically for men	80.5	100.0	115.3	130.0	147.2
	After-shave, cologne and pre-shave lotions in alcoholic lotion form	78.5	100.0	118.7	134.7	162.9
	—other than specifically for men	83.0	100.0	114.1	133.7	147.0
	Hair preparations (excl. shampoos)					
	Talc and dusting powders and bath preparations	85.2	100.0	114.7	135.0	152.1
	Talc and dusting powders	80.6	100.0	116.0	135.8	153.0
	Bath oils, cream and liquid essences	82.7	100.0	106.9	127.0	138.6
	Make-up preparations	83.2	100.0	114.0	131.0	146.0
	Lipsticks and lip glosses inc. lipsalve	83.4	100.0	112.2	128.3	145.0
	Face powders	85.4	100.0	115.8	130.6	147.3
	Liquid and cream facial make-up preparations	85.9	100.0	112.1	132.2	151.3
	Eye shadow and mascara	85.7	100.0	113.4	132.9	151.7
	Nail preparations	76.3	100.0	119.8	132.1	131.1
	Creams and lotions	84.3	100.0	113.2	129.4	135.7
	Facial beauty care preparations	86.7	100.0	110.9	122.5	133.8
	Cleansing creams, cold creams, lotions and milks, moisturisers, nourishing and night creams	86.7	100.0	111.1	123.4	132.0
	General creams and lotions					
	Hand creams, lotions and gels	75.3	100.0	119.0	145.9	160.3
	Deodorants, anti-perspirants and depilatories	84.8	100.0	113.9	125.5	133.3
	Dental toothpaste and powder	77.5	100.0	111.7	137.2	147.1
	Soapless shampoos	84.7	100.0	117.6	140.7	156.7
274	**Paint**	78.3	100.0	110.3	125.6	140.9
	Air drying and stoving finishers, undercoats, primers, surfacers and sealers, varnishes and lacquers					
	Building structural and preservative products	77.8	100.0	111.0	125.8	140.7
	Emulsion paints	78.7	100.0	109.1	124.1	138.3
	Filling and sealing compounds of all types	84.1	100.0	108.4	117.2	132.5
275	**Soap and detergents**	86.4	100.0	111.0	129.2	136.4
	Fatty acids	121.3	100.0	109.8	142.6	142.5
	Soap (excluding scouring preparations)	83.3	100.0	106.7	123.8	132.4
	Toilet soap in tablet form	83.5	100.0	103.7	120.2	129.7
	Finished synthetic detergents compounded materials primarily for washing purposes	82.8	100.0	111.0	126.1	134.6
276	**Synthetic resins and plastics materials and synthetic rubber**	86.5	100.0	116.8	137.3	141.6
276/1	**Synthetic resins and plastics materials**	86.5	100.0	117.9	138.1	141.4
	Products of condensation, polycondensation and polyaddition	87.6	100.0	112.1	136.7	141.8
	Products of polymerisation and copolymerisation	86.5	100.0	121.6	139.2	138.7
	Acrylics	81.5	100.0	113.2	125.2	129.2
	Polyethylene granules, compounds and powders	86.5	100.0	124.7	139.1	135.0
	Styrene polymers and copolymers	88.2	100.0	118.3	134.7	134.1
	Cellulosics and other plastics and modified natural resins	82.5	100.0	109.5	124.5	134.8
	Intermediate forms between the resin and semi-fabricated stages	87.3	100.0	121.9	142.9	147.6
	Semi-finished products	86.5	100.0	115.0	138.6	145.6
	Polyvinyl chlorides	84.8	100.0	126.4	152.3	156.0
277	**Dyestuffs and pigments**	81.6	100.0	124.1	148.0	155.3
	Pigments	80.9	100.0	125.8	149.8	155.0
	Inorganic pigment colours	87.6	100.0	119.9	152.3	160.7
	White lead [1]	107.2	100.0	124.6	162.4	165.2
278	**Fertilisers**	81.5	100.0	105.9	122.1	139.7
279	**Other chemical industries**	79.5	100.0	113.7	131.1	144.8
	Explosives fireworks etc	78.7	100.0	119.9	138.5	155.3
279/4	**Formulated pesticides**	77.6	100.0	116.4	133.1	144.8
	Disinfectants	78.0	100.0	114.0	128.3	139.4
	Pesticides	83.0	100.0	121.7	143.1	154.4
	Insecticides (other than seed dressings)	82.9	100.0	123.1	144.6	156.3
	Containing organophosphorous compounds	75.8	100.0	116.8	124.4	130.1
	Preparations for plant control					
	Herbicides	72.1	100.0	116.6	130.8	141.2
279/6	**Surgical bandages, etc**	82.3	100.0	113.0	133.0	143.8
	Surgical and medicated dressings	84.1	100.0	113.8	134.1	147.5
	Disposable sanitary goods					
	Sanitary towels and tampons	80.6	100.0	112.4	131.9	140.4
279/7	**Photographic chemical materials**	80.1	100.0	115.0	131.3	144.5
VI	**Metal manufacture**					
311/2	**Steel**	77.9	100.0	119.6	141.9	154.2
	Non-alloy steels	78.5	100.0	119.4	141.3	153.7
	Ingots, blooms, billets, slabs	70.6	100.0	128.9	156.0	162.7
	Heavy rails, sleepers and fishplates, etc	64.3	100.0	108.5	130.4	148.6
	Heavy rolled products, 80 mm and over	75.8	100.0	118.3	143.3	161.2
	Angles, tees and other sections	78.8	100.0	115.7	142.0	156.7
	Girders, beams, joists, columns	74.4	100.0	119.6	143.8	163.1
	Rods and bars in coils	76.2	100.0	121.8	142.9	147.4
	Steel strip (non-alloy)	78.4	100.0	122.5	142.7	151.6
	Hot rolled strip (under 600 mm wide)	79.7	100.0	124.0	144.9	150.4
	Plates in coils and cut lengths	76.4	100.0	110.6	124.1	133.2
	Steel sheet (under 3 mm thick)	83.6	100.0	121.6	143.8	158.1
	Uncoated steel sheet	84.4	100.0	123.2	146.7	163.0
	Uncoated steel sheet hot rolled	80.5	100.0	122.8	135.5	146.0
	Uncoated steel sheet cold reduced	84.8	100.0	123.3	147.9	164.7
	Electrical steel sheet	82.7	100.0	122.5	148.1	163.0
	Galvanised steel sheet	82.2	100.0	117.6	135.5	145.5
	Light sections	79.6	100.0	122.4	143.1	144.1
	Tinplate and blackplate	87.2	100.0	116.2	144.6	164.2
	Tinplate	87.2	100.0	116.2	144.7	164.3
	Blackplate	87.0	100.0	114.2	139.6	155.6
	Bright steel bars, non-alloy	75.2	100.0	128.2	151.0	162.6
	Forgings (other than drop forgings)	70.8	100.0	129.0	153.5	170.3
	Non-alloy steel castings	71.6	100.0	117.3	142.9	160.7
	Stainless and heat resisting alloy steels	76.8	100.0	114.8	142.4	149.4
	Sheets (under 3 mm thick)					
	Stainless steel sheets	83.7	100.0	119.7	154.6	160.8
	Stainless steel castings	72.1	100.0	114.2	134.4	153.0
	Alloy steels other than stainless and heat resisting	74.1	100.0	122.8	146.9	161.3
	Ingots, blooms, billets, slabs (excluding tube)	72.3	100.0	125.2	155.9	168.9
	Bars and rods other than in coil (excluding bright bars)	77.6	100.0	119.9	144.2	156.0
	Plates in coils and cut lengths	70.6	100.0	101.0	117.0	131.2
	Alloy steel castings	71.6	100.0	119.1	138.1	156.0

Table 3 Commodities produced in the United Kingdom *continued*

1975 = 100

1968 SIC		Annual averages 1974	1975	1976	1977	1978
	Structural steel	74.6	100.0	115.1	134.1	148.1
	Steel for reinforcement (cut, bent, and delivered)	79.6	100.0	117.8	138.8	152.8
	Light re-rolled bars and sections	80.5	100.0	122.0	141.2	146.0
312	**Steel tubes**	76.0	100.0	120.4	141.4	158.0
	Fittings for steel tubes	75.6	100.0	116.7	129.1	146.9
	Steel tubes (other than electric conduit tubes)	74.8	100.0	120.7	143.7	164.2
313	**Iron castings and pig iron**	74.0	100.0	119.7	137.5	152.2
313/3 313/4	**Iron castings**	74.4	100.0	119.0	136.4	152.9
313/3	**Engineering castings**	75.3	100.0	118.4	135.6	149.7
	Vehicle iron castings	75.9	100.0	116.3	131.3	146.3
	Industrial and marine iron castings	74.7	100.0	120.2	139.0	152.5
	Heavy engineering	77.5	100.0	117.4	137.2	151.6
	Light engineering and hydraulic	75.7	100.0	119.5	135.8	151.2
313/4	**Other iron castings**					
	Building and domestic goods	73.2	100.0	116.8	138.1	159.7
	Cast and spun iron pipes and fittings	71.5	100.0	123.6	138.1	153.0
321	**Aluminium and aluminium alloys**					
	Semi-manufactures (excluding castings and forgings)					
	Aluminium plate, sheet, strip, circles and blanks	86.1	100.0	121.7	172.2	180.7
	Aluminium extrusions and tubes (bars, rods, sections, etc)	86.0	100.0	131.1	171.4	178.1
	Aluminium forgings	81.1	100.0	121.7	149.0	179.3
322	**Copper, brass and other copper alloys**					
	Copper					
	Copper tubes	134.4	100.0	132.0	141.3	143.0
	Copper sheet and strip	130.0	100.0	133.6	138.5	138.1
	Brass and other copper alloys					
	—unwrought	135.1	100.0	130.9	132.1	126.7
	—semi-manufactures	125.9	100.0	129.7	133.4	128.2
323	**Miscellaneous non-ferrous metals**					
	Lead and lead alloys					
	—semi-manufactures	120.3	100.0	131.4	174.2	173.1
	Nickel [1]	101.2	100.0	137.6	138.6	116.7
	Titanium	75.1	100.0	123.1	148.6	169.8

VII Mechanical engineering

331	**Agricultural machinery**	80.0	100.0	118.5	143.8	165.3 p
	Soil preparation and cultivation machinery	79.0	100.0	116.8	141.8	163.1
	Harvesting, threshing, feed processing etc, machinery	79.3	100.0	119.8	146.7	168.3 p
	Pick-up balers	77.5	100.0	123.3	148.9	169.4
	Grinding mills and meal mixers excluding combined mills and mixers)	84.5	100.0	118.8	137.4	159.7
	Milking machinery					
	Milking machines, including parts	81.8	100.0	118.2	148.8	170.1
	Elevators and conveyors (excluding tractor mounted hydraulic loaders)	83.0	100.0	120.0	146.8	171.9
332	**Metal working machine tools**	77.3	100.0	117.2	139.5	157.5 p
332/1	**Metal cutting machine tools**	77.1	100.0	117.6	140.6	159.2
332/2	***Metal forming machine tools***	77.2	100.0	116.1	137.4	154.4 p
333	**Pumps, valves, compressors and fluid power equipment**	80.6	100.0	116.2	132.3	148.2 p
333/1	**Pumps**	79.3	100.0	118.2	135.5	151.6 p
	Centrifugal pumps	79.1	100.0	117.8	135.7	151.7 p
	Positive displacement pumps	80.6	100.0	119.6	135.2	152.8
	Kerbside petrol and oil measuring pumps and parts	77.5	100.0	118.2	133.2	145.6
333/2	**Industrial valves**	76.8	100.0	116.9	127.5	140.2
	Valves – ferrous metal	73.9	100.0	116.1	125.1	136.5
	Iron valves	75.4	100.0	119.4	137.1	150.9
	Steel valves	73.4	100.0	115.0	121.0	131.7
	Valves – non-ferrous metal	85.1	100.0	119.4	134.4	150.6
333/3	**Air and gas compressors**	81.5	100.0	113.9	136.6	157.1
333/4	**Fluid power equipment**	85.7	100.0	114.3	133.2	150.8 p
	Oil/hydraulic fluid power equipment	84.7	100.0	115.1	133.5	152.5 p
	Pneumatic control fluid power equipment	87.7	100.0	112.8	132.5	147.6
334	**Industrial engines**	77.2	100.0	121.2	144.5	167.1
	Diesel compression internal combustion engines	76.2	100.0	121.0	145.6	167.3
336	**Construction and earth-moving equipment**	80.5	100.0	124.8	150.0	168.7
	Excavators, trenchers, ditchers and digging machinery including parts	80.9	100.0	127.5	154.8	176.3
	Wheeled tractor shovels, crawler tractors, dumpers and other earth-moving equipment	81.5	100.0	125.9	151.5	168.8
	Dumpers and dump trucks	76.0	100.0	117.2	138.5	154.5
	Concrete mixing and placing machinery	77.6	100.0	114.9	134.5	156.1
	Crushing, pulverising and screening plant, including parts	78.4	100.0	122.5	140.4	158.2
337	**Mechanical handling equipment**	80.7	100.0	116.2	136.8	153.4
337/2	**Cranes and transporters**	77.5	100.0	119.1	139.0	153.5
337/4	**Lifting and winding devices**	80.8	100.0	117.6	138.5	152.4
337/5	**Powered industrial trucks and tractors**	80.4	100.0	117.8	143.4	161.4
339/1	**Mining machinery**	81.5	100.0	116.3	133.4	148.5 p
339/3	**Refrigerating machinery**	85.1	100.0	120.4	145.3	162.7 p
339/5	**Scales and weighing machinery (excluding precision balances)**	78.8	100.0	116.9	132.9	150.5
339/6	**Portable power tools**	82.5	100.0	116.4	136.1	150.6
	Portable power tools, non-electric – pneumatic					
	—for civil engineering, mining and quarrying	83.0	100.0	113.2	135.7	158.6
	—for general engineering	80.8	100.0	118.2	139.9	158.3
	Portable power tools, electric	82.2	100.0	117.5	135.7	146.3
	—power drills	83.6	100.0	118.3	139.8	152.6
339/7	**Food and drink processing machinery**	81.6	100.0	115.1	135.2	151.9 p
339/9	**Miscellaneous (non-electrical) machinery**	81.0	100.0	117.2	139.6	158.6 p

VIII Instrument engineering

352	**Clocks, watches and time recorders**	81.2	100.0	117.5	134.0	153.5
	Clocks	80.4	100.0	118.2	136.5	158.1
354	**Scientific and industrial instruments and systems**	80.4	100.0	117.0	132.4	146.2
354/2	**Other scientific and industrial instruments and systems (non-optical)**					
	Analytical instruments	84.9	100.0	111.8	129.8	144.7
	Spectrophotometers and absorptionmeters	87.6	100.0	108.4	121.5	134.6
	Electrical measuring, testing and controlling instruments and apparatus	84.5	100.0	116.4	131.4	141.5

IX Electrical engineering

365	**Broadcast receiving and sound reproducing equipment**	85.8	100.0	110.0	122.6	130.2
365/1	**Gramophone records and pre-recorded tapes**	82.5	100.0	116.0	130.8	149.5
	Gramophone records	82.8	100.0	116.5	131.8	151.3
	—33⅓ rpm	82.4	100.0	116.7	132.6	152.5
	—45 rpm	84.4	100.0	115.3	128.4	145.8
	Pre-recorded tapes (other than video)	81.0	100.0	113.8	125.8	141.0
365/2	**Broadcast receiving and sound reproducing equipment, other than gramophone records and pre-recorded tapes**	86.8	100.0	108.1	120.1	124.2
	Domestic television receivers	86.5	100.0	107.9	121.1	126.9
	—monochrome	87.9	100.0	110.1	124.2	127.1
	—colour	86.3	100.0	107.7	120.8	126.9
	Stereo audio systems, incorporating turntable/amplifier	89.1	100.0	105.3	112.7	112.2
368	**Electrical appliances primarily for domestic use**	82.6	100.0	114.2	138.3	154.2
	Domestic electric cooking apparatus	84.4	100.0	115.5	139.4	157.0
	Domestic electric flat irons	75.4	100.0	111.1	131.2	148.3
	Domestic electric heating apparatus	82.1	100.0	117.5	141.9	160.1
	Domestic space heating apparatus	83.3	100.0	118.2	146.2	166.2
	Electric water heaters	76.4	100.0	120.1	138.9	158.5
	Vacuum cleaners	82.2	100.0	113.9	141.0	156.6
	Domestic refrigerators and freezers	82.6	100.0	110.1	132.9	144.5
	Miscellaneous domestic electric appliances (includes food and drink mixers, hair dryers and dry shavers)	82.2	100.0	115.0	139.2	153.8
369/4	**Electric lamp bulbs and tubes**	78.5	100.0	117.9	141.4	155.4
	Fluorescent tubular lamps	84.4	100.0	117.0	139.5	155.3
	Electric lamp bulbs, filament type					
	—exceeding 28 volts	74.9	100.0	117.9	142.8	157.1

XI *Vehicles*

380	**Wheeled tractors, complete**	72.8	100.0	127.6	159.4	180.9
381	**Motor vehicles**	76.8	100.0	117.2	143.3	163.1
	Passenger cars	77.2	100.0	116.7	144.9	166.4
	Passenger cars [2]	77.8	100.0	116.7	144.9	166.4
	Commercial and public service vehicles	73.9	100.0	118.0	144.5	165.3
	Commercial vehicles	74.5	100.0	118.1	145.1	166.2
	Commercial vehicles and chassis not exceeding 3.5 tons gvw	74.1	100.0	119.4	148.9	172.7
	Commercial vehicles and chassis exceeding 3.5 tons but not exceeding 16 tons gvw	73.8	100.0	117.9	144.1	164.1
	Commercial vehicles and chassis exceeding 16 tons gvw	76.0	100.0	116.6	141.5	160.7
	Public service vehicles	72.7	100.0	117.9	143.1	163.5

XII Metal goods not elsewhere specified

390	**Engineers small tools and gauges**	82.9	100.0	120.5	149.1	171.1
	Engineers cutting tools	81.2	100.0	121.5	152.0	171.1
	Diamond tipped tools and diamond dies	84.4	100.0	114.4	143.4	175.9
	Saws					
	Hacksaw blades	84.8	100.0	125.3	167.4	191.9
	Milling cutters	81.8	100.0	115.3	137.5	152.1
	Engineers gauges and measuring instruments	81.5	100.0	119.6	146.4	169.6
391	**Hand tools and implements**	75.3	100.0	118.4	142.8	164.3
	Agricultural, horticultural and foresters hand tools	70.3	100.0	125.3	155.1	177.2
	Hand saws and hand saw blades	77.7	100.0	116.2	156.0	186.8
	Hand tools and implements excluding agricultural and foresters hand tools and saws and saw blades	76.6	100.0	116.3	139.4	161.0
	Pliers, pincers and nippers, etc	75.6	100.0	125.1	157.6	186.6 [4]
	Spanners and wrenches	77.7	100.0	116.9	141.8	164.4
	Planes, hammers, cold chisels etc, screwdrivers, wood chisels and gouges	73.1	100.0	114.9	135.0	161.4
	Measuring and marking out tools	79.3	100.0	115.6	131.2	148.2
392	**Cutlery, spoons, forks and plated tableware etc**	82.8	100.0	116.7	136.0	155.2
	Finished cutlery suitable for domestic or personal use	80.8	100.0	120.2	139.5	154.1
	Scissors and tailors' shears (including pinking shears)	85.9	100.0	120.7	142.3	157.3
393	**Bolts, nuts, screws, rivets etc**	76.5	100.0	125.5	150.8	167.2
	Precision standard bolts etc, of high tensile steel	75.0	100.0	122.1	141.1	149.9

Table 3 Commodities produced in the United Kingdom *continued*

1975 = 100

1968 SIC		Annual averages 1974	1975	1976	1977	1978
394	**Wire and wire manufactures**	87.8	100.0	123.6	141.7	150.4
	Iron and steel wire	79.5	100.0	121.4	142.1	152.8
	Single drawn wire other than alloy and high carbon steel	78.8	100.0	123.4	143.5	153.3
	Wire ropes (excluding insulated electric wire and cable)	79.2	100.0	116.5	135.7	147.0
	Iron and steel woven wire, cloth gauze fabric etc, (excluding netting and fencing) of square or rectangular mesh	84.5	100.0	126.6	148.7	158.5
	—stainless steel	84.8	100.0	125.8	148.4	150.0
	—other than stainless steel	84.4	100.0	127.1	148.8	162.9
	Other wire manufactures, ie grille netting, fencing reinforcement fabric etc	87.0	100.0	121.1	137.8	151.7
	Wire of copper, brass and other copper alloys					
	Woven wire cloth, gauze fabric, etc, of copper and brass, etc	95.5	100.0	126.7	145.4	150.3
	Reinforcement fabrics	92.9	100.0	115.6	134.1	147.8
	Chain link fencing	83.8	100.0	128.1	145.3	160.4
399	**Metal industries not elsewhere specified**	82.8	100.0	117.4	138.1	155.6
399/1	**Metal furniture**	84.0	100.0	114.8	131.4	149.7
	Office metal furniture	88.5	100.0	113.8	133.8	156.5
	Filing cabinets and other filing containers	88.9	100.0	114.2	134.8	161.4
399/2	**Metal windows and door frames**	79.9	100.0	125.1	151.3	167.1
399/6	**Domestic hollow ware**	80.8	100.0	114.8	136.7	157.9
	Cookware	81.7	100.0	115.7	138.7	161.8
399/7	**Vats, tanks, cisterns and other industrial hollow ware**	78.3	100.0	116.9	137.8	155.8
	Steel drums	78.8	100.0	118.0	140.8	158.8
399/8	**Needles, pins, fishhooks and other metal smallwares**	80.9	100.0	119.6	148.6	171.7
399/9	**Domestic gas appliances**	81.7	100.0	119.6	144.6	162.4
	Gas cookers	82.3	100.0	119.6	143.9	161.7
	Gas fires and space heaters	81.6	100.0	119.8	144.9	163.8
	Water heaters and other domestic gas apparatus (excl. refrigerators and meters)	79.0	100.0	119.3	147.3	162.3
399/12	***Miscellaneous metal goods***					
	Sanitary ware and plumbing fixtures and fittings	85.9	100.0	124.1	145.1	157.3
	Fire extinguishers (hand operated chemical type only)	81.1	100.0	111.7	124.9	141.1
	Catering equipment	77.8	100.0	120.1	141.8	157.5
	Plumbers brassware	93.3	100.0	122.7	142.0	155.3
XIII	**Textiles**					
411	**Man-made fibres production**	89.3	100.0	111.3	125.0	127.7
	Man-made fibres – continuous filament yarn	89.2	100.0	115.0	133.2	137.3
412	**Spinning and doubling on the cotton and flax systems**					
	Single yarns spun on the cotton and flax systems	101.3	100.0	130.4	143.3	144.2
	Single yarns of man-made staple fibres spun on the cotton and flax systems	89.3	100.0	116.5	133.2	140.4
	Man-made continuous filament yarns, textured, bulked or crimped synthetic fibres	96.3	100.0	113.6	120.5	124.3
	Finished thread for sewing, embroidery, etc	101.6	100.0	128.2	156.1	170.8
	—of man-made fibres	91.9	100.0	115.5	132.5	142.9
413	**Weaving of cotton, linen and man-made fibres**	91.8	100.0	111.7	130.2	137.2
	Woven cotton cloth in the loomstate	100.3	100.0	117.6	140.1	143.6
	Cloth wholly of man-made continuous filament yarn in the loomstate	86.0	100.0	109.1	124.0	132.3
	Man-made fibre tyre cord and tyre fabric	99.8	100.0	111.4	132.2	134.0
	Woven linen	90.0	100.0	121.2	161.5	167.4
	Woven fabric of glass fibre	75.9	100.0	117.0	145.3	163.6
414	**Woollen and worsted products**	93.5	100.0	124.5	147.0	154.8
414/1	**Wool sorting, cleaning, etc and *combing and top making***					
	Wool tops	116.2	100.0	155.0	165.6	160.6
414/2	**Yarns spun on the worsted and *semi-worsted systems***	91.0	100.0	117.8	139.0	148.5
	Yarns of wool spun on the worsted system	91.9	100.0	119.1	147.2	154.2
	Yarns of man-made fibres spun on the worsted system	89.8	100.0	113.4	127.1	136.3
414/3	**Woven worsted fabrics**	96.8	100.0	119.2	141.9	148.1
414/4	***Wool rag'***	104.6	100.0	115.7	153.9	160.9
414/5	**Woollen spinning and weaving**					
	Woven woollen fabrics (other than blankets)	90.4	100.0	123.5	149.0	161.4
	Woven woollen fabrics (other than blankets) containing 50 per cent or more by weight of wool or fine animal hair	90.6	100.0	125.6	153.3	165.1
	Spinning and weaving of jute and other yarns on the jute system	88.4	100.0	116.4	131.0	139.0
	Spun yarns of jute and man-made fibres	86.5	100.0	113.9	129.4	144.2
	Woven cloths of jute and man-made fibres	79.8	100.0	110.6	122.0	133.1
	Woven cloths of polypropylene on the jute system	92.8	100.0	120.1	135.2	138.1
	Rope, twine and net	81.5	100.0	103.2	119.5	125.5
	Cordage, cables, ropes and twine of textile materials (excl. agricultural twines)	83.7	100.0	104.1	120.0	125.1
417	**Hosiery and other knitted goods**					
	Socks and stockings	90.8	100.0	106.7	119.5	133.4
	Women's socks and stockings	91.7	100.0	104.3	113.6	124.9
419	**Carpets and rugs**	86.7	100.0	115.7	134.7	149.7
	Woven carpets and carpet type rugs	85.4	100.0	121.2	145.1	163.3
	—faced with yarn containing at least 50 per cent but less than 100 per cent by weight of wool	86.1	100.0	121.7	147.8	165.7
	Rugs including pile fabric, deep pile knitted	85.4	100.0	118.4	140.2	153.2
421	**Narrow fabrics**					
	Petershams, galloons and ribbons	86.1	100.0	114.4	136.4	154.9
422	**Made-up textiles**					
422/1	**Household textiles and handkerchiefs**	96.2	100.0	109.6	132.6	141.7
	Hand and bath towels	96.7	100.0	113.4	139.1	152.0
429	**Other textile industries**	79.0	100.0	121.6	144.9	164.1
429/1	**Asbestos manufactures**	78.8	100.0	121.6	149.7	170.4
429/2	**Miscellaneous textile industries**					
	Mechanically bonded fibre-needled fabrics	81.7	100.0	121.0	139.7	161.0
XIV	**Leather goods and fur**					
431/1	**Leather**					
	Finished leather – for footwear	97.9	100.0	124.8	134.6	139.8
432	**Leather goods**	85.7	100.0	114.7	134.7	148.6
XV	**Clothing and footwear**					
441	**Weatherproof outerwear**	86.6	100.0	110.2	125.6	137.9
	Raincoats (excl. those of infants)					
	Raincoats other than of plastics ma-	89.0	100.0	110.3	122.1	134.4
	Weather protective industrial clothing of PVC coated materials	88.3	100.0	110.5	137.8	150.4
442	**Men's and boys' tailored outerwear**	85.0	100.0	112.7	121.8	137.0
	Men's and boys' suits	83.7	100.0	116.0	125.8	144.0
	Men's trousers (sold separately)	87.7	100.0	111.4	117.7	127.3
444	**Overalls and men's shirts, underwear, etc**	90.0	100.0	113.4	134.7	148.7
444/2	**Men's and boys' shirts, underwear and nightwear**	87.3	100.0	109.1	122.7	138.8
449	***Corsets, gloves and miscellaneous* dress industries**	84.3	100.0	115.7	131.9	147.7
449/1	Corsets	85.3	100.0	111.8	123.7	135.9
	Brassieres	85.0	100.0	119.3	139.1	158.5
449/3	**Umbrellas and walking sticks**	80.2	100.0	111.1	125.4	138.0
450	**Footwear**	86.3	100.0	113.1	132.4	147.8
	Outdoor footwear	86.3	100.0	113.5	133.4	148.6
	Boots and shoes with uppers wholly or mainly of leather	86.1	100.0	115.3	138.3	157.0
	Men's boots and shoes with uppers wholly or mainly of leather	87.5	100.0	115.2	142.5	157.5
	Women's boots and shoes – with uppers wholly or mainly of leather	84.3	100.0	115.5	136.0	160.0
	Slippers, houseshoes and ballet shoes					
	Women's slippers, houseshoes and ballet shoes	86.1	100.0	107.6	125.9	147.1
XVI	**Bricks, pottery, glass, cement, etc**					
461	**Bricks, fireclay and refractory goods**	77.1	100.0	120.5	146.6	164.0
461/1	***Refractory goods***	76.6	100.0	122.2	153.7	168.4
	Refractory bricks and shapes	74.9	100.0	122.4	155.8	170.3
	Firebricks and shapes	76.0	100.0	115.0	139.5	155.6
461/2	***Clay building bricks and other non-refractory goods***	77.3	100.0	119.3	141.4	160.0
	Common, facing and engineering bricks	76.7	100.0	119.7	141.6	159.9
	Common bricks	75.3	100.0	117.5	139.4	158.0
	—Non-fletton (ex-works)	78.4	100.0	121.2	141.4	162.1
	—Fletton (delivered)	71.4	100.0	113.0	136.9	153.0
	Facing bricks	77.0	100.0	120.4	143.3	162.3
	—Non-fletton (ex-works)	78.1	100.0	125.4	148.2	168.4
	—Fletton (delivered)	74.9	100.0	111.2	134.2	151.0
	Engineering bricks (ex-works)	80.8	100.0	125.1	141.4	155.9
	Engineering bricks (delivered)	88.1	100.0	121.2	141.5	160.5
	Clay roofing tiles – (ex-works)	73.2	100.0	112.7	134.4	155.4
	Unglazed floor quarry tiles – *(ex-works)*	88.2	100.0	123.0	139.6	162.2
462	**Pottery**	78.9	100.0	115.7	132.3	151.6
462/1	**Electric ware incl. insulators and insulator fittings wholly or mainly of ceramic material**	76.5	100.0	116.3	133.0	151.2
462/2	**Vitreous china sanitary ware and pottery tiles**	80.8	100.0	112.2	132.2	152.2
	Tiles, excl. pre-cast concrete tiles	81.7	100.0	105.9	124.6	139.3
	Vitreous china sanitary ware	79.7	100.0	120.6	142.4	169.0
463	**Glass**	75.4	100.0	118.2	142.0	159.3
463/1	**Glass other than containers and vacuum ware**	77.7	100.0	119.3	142.4	157.8
	Flat glass	79.7	100.0	121.6	147.6	160.7
	Domestic and ornamental glassware	79.4	100.0	118.1	139.2	159.2
	—Hand gathered	77.9	100.0	111.4	134.7	155.7
	—Mechanically gathered	80.0	100.0	120.7	141.0	160.7
	Laboratory hygienic and pharmaceutical glassware and balls, tubing and rods	77.3	100.0	115.2	133.7	153.1
	Glazing sheet and plate glass	78.9	100.0	122.0	149.7	162.6
463/2	**Glass containers and vacuum ware**					
	Glass containers	72.7	100.0	116.9	141.5	160.9
	non-tubular for all products excl. wines, spirits, beer and cider	74.1	100.0	116.6	141.5	161.5
464	**Cement**					

Table 3 Commodities produced in the United Kingdom *continued*

1975 = 100

1968 SIC		Annual averages 1974	1975	1976	1977	1978
	Calcareous cement (other than clinker) delivered in bulk	71.3	100.0	123.2	146.3	164.6
	Cement in bags	71.5	100.0	123.8	146.9	165.3
469/1	**Abrasives**	79.6	100.0	119.0	145.6	163.9
	Abrasive wheels (disc wheels, segment sharpening stones and other forms of bonded abrasives incl diamond)	80.2	100.0	119.5	146.5	165.3
	Coated abrasives – abrasive paper and cloth	78.6	100.0	118.0	143.8	161.1
469/2	**Miscellaneous building materials and mineral products**	74.9	100.0	125.2	150.4	169.4
	Plasterboards	71.3	100.0	111.7	132.0	143.4
	Precast concrete goods	77.5	100.0	122.1	144.0	162.6
	Concrete blocks, bricks, kerbs and edgings					
	Flagstones	80.2	100.0	118.5	136.4	157.5
	Kerbs and edgings	82.1	100.0	113.8	128.4	147.3
	Precast concrete building blocks – delivered	83.1	100.0	120.5	142.6	163.6
	Precast concrete pipes to BS556 – delivered	68.4	100.0	128.3	158.5	174.9
	Roofing tiles and fittings and concrete/terrazzo floor and wall tiles	76.0	100.0	117.7	136.8	153.0
	Asbestos cement goods	73.1	100.0	130.2	164.1	196.5
	Bituminous and flax felts	81.1	100.0	122.0	142.7	153.2
	Insulating materials for thermal and acoustic purposes n.e.s.	71.1	100.0	121.6	141.4	158.0
	Quicklime	79.3	100.0	123.6	153.5	179.7
	Limestone based, polished etc	73.3	100.0	133.3	160.8	184.2
	Plaster (gypsum)	73.0	100.0	112.0	132.2	143.4
XVII	**Timber, furniture, etc**					
471/1	**Timber, sawmilling etc**					
	Homegrown sawn hardwood	97.4	100.0	113.0	142.2	164.8
	Hardwood flooring blocks and mosaic flooring	93.8	100.0	106.5	128.5	141.5
471/2	**Builders' woodwork**	84.8	100.0	118.7	144.5	153.8
	Door sets, leaves and frames and window frames	84.4	100.0	118.5	148.1	157.0
	Door leaves	87.8	100.0	116.6	148.4	157.3
	Window frames	81.1	100.0	120.0	147.6	156.7
	Timber structures and structural components	85.9	100.0	118.2	140.2	150.5
472	**Furniture and upholstery**	85.6	100.0	111.9	131.4	144.9
	Domestic upholstered furniture	85.5	100.0	110.7	126.8	139.8
	Domestic wooden furniture	85.2	100.0	113.2	135.2	149.2
	Bedroom furniture, excl. built-in	85.2	100.0	110.7	129.2	144.5
	Kitchen furniture (excl. built-in)	82.1	100.0	112.6	137.2	151.4
	other than tables and seating	81.3	100.0	112.8	137.4	151.4
	Dining/living room furniture, excluding built-in	83.4	100.0	112.6	134.4	151.0
	Seating	82.3	100.0	112.4	130.9	147.7
	Occasional furniture for dining/living room	85.3	100.0	110.3	128.6	145.4
473	**Bedding and soft furnishings**					
	Fully finished mattresses	82.3	100.0	119.8	147.2	157.8
	Bolsters and pillows (covered)	94.5	100.0	116.2	167.8	191.2
XVIII	**Paper, printing and publishing**					
481	**Paper and board**	78.0	100.0	112.5	131.3	131.7
	Printing and writing paper and all boards for printing (excl. newsprint)	77.1	100.0	113.8	132.6	131.9
	Wrapping paper	78.9	100.0	107.4	122.8	121.9
	All tissue stocks	75.0	100.0	111.3	128.8	128.3
	Industrial and special purpose paper	79.2	100.0	110.1	127.6	127.5
	Packaging boards	78.7	100.0	114.4	135.6	140.4
	Industrial and special purpose boards	79.7	100.0	111.0	130.1	137.8
	Packaging products of paper, board and associated materials	77.1	100.0	111.5	126.2	135.0
482/1	**Cardboard boxes, cartons and fibreboard packing cases**	76.9	100.0	113.7	128.8	138.7
	Cartons	76.6	100.0	116.5	137.2	150.7
	Fibre-board packing cases	76.6	100.0	111.5	121.5	128.1
	—Solid	79.0	100.0	111.5	126.1	135.1
	—Corrugated	76.5	100.0	111.5	121.2	127.6
482/2	**Miscellaneous packaging products of paper and film**	77.6	100.0	106.7	120.1	126.5
	Paper bags	79.5	100.0	92.6	100.7	105.1
	Paper sacks	72.5	100.0	111.1	125.3	129.1
483	**Manufactured stationery**	77.0	100.0	113.9	136.4	144.9
	Commercial envelopes	77.6	100.0	107.2	126.2	132.3
	Business forms	75.5	100.0	116.2	138.0	142.7
	Continuous stationery	75.4	100.0	113.1	133.8	132.4
	Stationery and scholastic books and ruled paper	78.7	100.0	112.5	137.2	153.6
	Loose leaf supplies	76.8	100.0	111.3	127.6	145.8
	Filing supplies	76.8	100.0	113.0	130.6	140.1
484	**Manufactures of paper and board not elsewhere specified**	76.5	100.0	113.0	130.1	136.9
484/2	**Miscellaneous manufactures of paper and board**					
	Toilet paper	75.3	100.0	118.1	136.5	142.0
	Household and sanitary tissue products	75.1	100.0	115.1	133.2	137.9
	Handkerchiefs and facial tissues	76.1	100.0	117.2	133.7	139.5
	Kitchen rolls and towels	74.8	100.0	114.4	131.2	136.0
XIX	**Other manufacturing industries**					
491	**Rubber manufactures**	83.4	100.0	113.1	139.3	153.4
491/1	**Tyres and tubes**	84.3	100.0	110.3	139.1	149.3
	New tyre covers	84.0	100.0	114.0	139.6	149.1
	—cross-ply, car and van	87.2	100.0	114.7	142.2	149.0
	—radial ply, car and van	84.6	100.0	112.9	139.8	149.1
	—commercial vehicles	82.8	100.0	114.8	138.7	148.9
	tractors, earthmovers and land/road	83.6	100.0	113.1	138.5	149.5
491/2	**Other rubber goods**					
	Belting (of rubber or plastics)	81.2	100.0	117.3	142.5	156.8
	Conveyor and elevator belting	80.8	100.0	119.4	144.5	160.0
	Belting other than conveyor and elevator belting					
	Transmission belting	82.2	100.0	111.7	136.9	148.1
	Miscellaneous rubber products					
	Cellular products of rubber	91.3	100.0	112.0	126.1	139.4
492	**Linoleum, plastics floor-covering, leathercloth etc**	86.2	100.0	109.7	124.4	136.2
493	**Brushes and brooms**	80.9	100.0	114.9	133.7	149.3
	Decorating brushes and rollers	86.0	100.0	114.5	131.5	145.1
	Toilet brushes	81.9	100.0	121.4	136.6	153.9
494	**Toys, games, children's carriages and sports equipment**	83.6	100.0	113.9	132.7	149.7
494/1	**Toys and games**	83.4	100.0	112.7	130.3	145.8
	Dolls and soft toys	81.8	100.0	111.6	135.0	153.5
	Mechanically self-propelled and die-cast metal toys	80.6	100.0	115.8	131.4	146.1
	—mechanical (self-propelled) including train sets	85.6	100.0	109.8	125.8	140.8
	—die-cast	79.8	100.0	116.8	132.4	147.0
	Indoor table games	89.3	100.0	107.4	124.0	142.6
494/3	**Sports equipment**	83.1	100.0	117.3	139.9	163.3
495	**Miscellaneous stationers' goods**	82.2	100.0	111.9	129.6	141.1
495/1	**Pens and pencils**	85.0	100.0	109.4	131.8	150.5
	Ballpoint pens	85.2	100.0	105.7	130.5	152.6
	Fountain pens, stylos and markers	89.9	100.0	110.1	131.8	147.2
	Fountain pens with stainless steel nibs	84.7	100.0	113.0	130.4	149.7
496	**Plastics products**					
	Building materials of plastics	85.8	100.0	118.0	141.6	154.6
	Pipes and fittings of plastics	81.6	100.0	122.0	149.3	159.9
	Rainwater pipes and fittings of plastics	75.3	100.0	123.8	147.7	159.3
	Packaging products and transit containers of plastics	87.7	100.0	113.8	132.9	145.1
	Other plastics products					
	Haberdashery of plastics (including slide and zip fasteners)	86.0	100.0	115.8	134.1	146.4
499/1	**Musical instruments**					
	Pianos	83.3	100.0	114.3	139.4	154.6
	Other indices					
312 361/2 362 369/5	Part Electrical installation materials, domestic	97.8	100.0	114.9	134.3	145.7
338 399/1 399/3 472	Part Office equipment and machinery (excluding computers and calculators)	84.3	100.0	111.8	129.6	145.7
399/1 472	Part Office furniture	85.5	100.0	113.2	130.8	147.8
	Special indices					
	Granite and limestone roadstone	75.7	100.0	124.9	148.6	164.0
	Petroleum products	80.7	100.0	121.5	150.1	152.3
	Steel sheets	83.8	100.0	122.0	145.6	159.9
	Steel sheet piling	75.3	100.0	120.3	143.7	162.8
	Finished stainless steels	76.3	100.0	112.9	142.3	142.3
	Finished steels (other than sheets tin-plate, tubes, forgings and castings)	76.6	100.0	118.8	139.3	149.1
	Steel castings	71.7	100.0	117.3	140.1	158.0
	Semi-finished steels for forgings (other than drop forgings)	72.3	100.0	129.4	158.0	167.2
	Malleable iron castings	73.2	100.0	120.3	136.3	159.4
	Wrought aluminium	85.6	100.0	125.5	163.6	175.7
	Brass ingots	134.9	100.0	132.7	135.4	124.9
	Industrial pumps	79.4	100.0	118.2	135.6	151.9 p
	Primary and secondary batteries	86.2	100.0	122.8	149.5	163.2
	Door sets, leaves and frames	87.3	100.0	117.1	148.4	157.2
	Domestic furniture	85.3	100.0	112.4	132.5	146.2
	Divan sets	83.3	100.0	112.7	133.3	150.5

p Provisional.

Wholesale price indices: further information

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01-215 3544 tables 1 and 2
01-215 3549 engineering
01-215 5216 chemicals, steel, building materials, etc.
01-215 3548 textiles, clothing, timber, paper, etc.
01-215 3173 imported commodities

Table 4 Commodities wholly or mainly imported into the United Kingdom

1975 = 100

1968 SIC	Annual averages 1974	1975	1976	1977	1978
Hides, skins and fur skins undressed					
Hides and skins, imported	111.1	100.0	189.4	214.5	258.3
Hides	108.6	100.0	188.0	210.2	251.2
Wet	108.5	100.0	190.2	210.7	253.0
Dry	109.6	100.0	153.9	202.1	223.7
Calf skins	143.7	100.0	207.7	271.0	350.9
Hides and skins, UK origin	111.0	100.0	218.7	235.1	263.0
Hides and skins, UK origin and imported	109.5	100.0	200.1	220.1	255.9
Oilseeds, oilnuts and oil kernels	134.5	100.0	127.8	159.6	144.1
Groundnuts, African, cif Europe [1]	185.4	100.0	117.9	159.4	162.2
Copra, Philippine, cif Europe [1]	237.1	100.0	134.6	202.2	212.4
Palm nuts and kernels, Nigerian, cif Europe [1]	212.1	100.0	138.5	199.8	203.7
Soya beans, US No. 2 grade, cif UK [1]	118.9	100.0	129.5	156.0	140.3
Linseed, Canadian No. 1, cif UK [1]	135.0	100.0	109.5	105.2	86.4
Animal oils and fats					
Herring oil [1]	145.0	100.0	128.5	173.2	147.8
Fixed vegetable oils and fats					
Cottonseed oil, washed [1]	116.2	100.0	102.7	113.4	112.9
Groundnut oil, London, spot price [1]	111.6	100.0	105.4	135.2	166.7
Olive oil, Spanish edible, max. 1% ffa [1]	87.4	100.0	110.1	115.7	113.8
Linseed oil, cif London/Hull [1]	143.8	100.0	95.2	83.2	71.6
Palm oil, crude, London, spot price [1]	156.1	100.0	113.8	156.7	169.6
Coconut oil, cif Europe [1]	251.6	100.0	131.4	186.3	199.6
Castor oil, Brazilian No. 1 grade [1]	134.7	100.0	148.5	203.6	171.7
Crude rubber					
Natural rubber smoked sheet [1]	109.6	100.0	161.3	168.6	174.7
Wood, lumber and cork					
Softwood (delivered to consumers)	108.5	100.0	131.7	159.4	148.2
Hardwood (ex yard or wharf)	108.3	100.0	131.1	162.4	168.6
Keruing	95.8	100.0	110.8	123.7	136.4
Ramin	92.6	100.0	148.1	159.0	162.1
Utile	113.1	100.0	162.7	191.1	201.0
Meranti	95.4	100.0	120.4	135.6	140.9
Wood and cork manufactures					
Plywood and blockboard (delivered to consumers)	104.6	100.0	123.2	148.0	150.5
Pulp and paper					
Woodpulp	70.8	100.0	119.1	117.1	92.1
Paper, paperboard and manufactures thereof					
Paper and paperboard	78.3	100.0	107.2	129.4	128.0
Newsprint paper	82.9	100.0	118.4	147.8	147.4
Textile fibres					
Raw wool, greasy or fleece washed, imported	117.3	100.0	146.3	156.0	149.4
Merino	120.6	100.0	130.3	144.1	135.1
Crossbred	113.1	100.0	166.2	179.8	167.2
Raw wool, UK origin	114.6	100.0	178.8	205.8	196.2
Raw wool, UK origin and imported	116.7	100.0	152.8	169.1	158.7
Raw cotton [1]	116.5	100.0	181.1	171.5	159.1
Raw jute [1]	86.2	100.0	99.3	112.3	125.3
Crude fertilisers and crude minerals					
Natural phosphates	81.8	100.0	79.9	77.8	73.5
Asbestos, Canadian, fob Quebec [1]	74.3	100.0	149.7	163.2	138.4
Steatite talc [1]	60.0	100.0	102.2	134.9	142.8
Metalliferous ores and metal scrap					
Bauxite, min. 86% Al_2O_3 [1]	75.9	100.0	127.4	147.1	160.1
Manganese ore, 48-50% Mn grade max. 0.1% P, cif Europe [1]	78.3	100.0	127.5	131.9	114.5
Chrome ore [1]	86.2	100.0	123.5	127.2	115.8
Tungsten ore, min. 65%, cif Europe [1]	90.9	100.0	156.1	236.9	181.7
Titanium ore [1]	79.2	100.0	115.8	107.9	109.1
Non-ferrous metals					
Silver, refined and partly refined [1]	99.6	100.0	121.3	132.6	140.9
Copper, LME settlement price [1]	157.3	100.0	139.8	134.7	127.2
Nickel, free market price [1]	101.2	100.0	137.6	138.6	116.7
Lead, LME settlement price [1]	136.0	100.0	134.2	190.4	183.9
Zinc, producers' price [1]	90.8	100.0	120.7	114.0	87.2
Zinc, LME settlement price [1]	157.6	100.0	117.6	101.0	92.0
Tin ingot, min. 99.75% LME settlement price [1]	113.1	100.0	137.1	199.7	216.6
Magnesium [1]	72.9	100.0	120.7	145.7	145.7
Bismuth [1]	104.9	100.0	119.5	102.4	74.6
Petroleum and petroleum products					
Crude oil [2]	85.6	100.0	131.5	149.3	138.3
Chemical elements and compounds					
Mercury, min. 99.99%, cif Europe [1]	197.9	100.0	88.0	136.6	117.2

[1] Source of information: trade publications. [2] Based on unit value of imports at their time of entry. p Provisional.

Table A Price index numbers of materials and fuel purchased: Percentage changes December 1976-December 1978

1975 = 100

1968 SIC Orders or MLH Numbers		Dec 1976	Dec 1977	Dec 1978	Dec 77/ Dec 76	Dec 78/ Dec 77
Orders III to XIX	Materials and fuel purchased by manufacturing industry:	138.8	141.0	148.3	+1.6	+5.2
	Materials [1]	140.8	140.7	147.5	−0.1	+4.8
	Coal (except for carbonising), gas and electricity	124.2	143.1	153.1	+15.2	+7.0
Orders IV to XIX	Materials and fuel purchased by manufacturing industry, other than food, drink and tobacco manufacturing industries	136.4	137.3	141.3	+0.7	+2.9
	Materials	138.8	136.2	139.1	−1.9	+2.1
Order III	Materials and fuel purchased by the food, drink and tobacco manufacturing industries	139.2	147.7	161.2	+6.1	+9.1
	Materials and fuels purchased by Selected Broad Sectors of Industry					
211 to 229	Food manufacturing industries	141.6	149.7	163.1	+5.7	+9.0
	Materials	142.0	149.7	163.4	+5.4	+9.2
	Fuel [2]	133.2	150.9	156.1	+13.3	+3.4
211 to 229 (excluding MLH 219	Food manufacturing industries (excluding animal and poultry foods)	139.6	149.8	163.4	+7.3	+9.1
Order V	Chemicals and allied industries	138.7	148.7	155.7	+7.2	+4.7
311 and 312	Steel industries	133.8	141.2	149.4	+5.5	+5.8
321 to 323	Non-ferrous metals industry	136.3	140.5	156.6	+3.1	+11.5
Order VII (excluding MLH 342)	Mechanical engineering industries	133.1	145.4	160.0	+9.2	+10.0
Order IX	Electrical engineering industries	132.6	142.3	156.2	+7.3	+9.8
Order X	Shipbuilding and marine engineering industries	130.7	146.6	163.9	+12.2	+11.8
Order XII	Metal goods industries	137.1	145.8	159.7	+6.3	+9.5
Order XIII	Textiles industries	139.0	140.7	150.9	+1.2	+7.2
Order XV	Clothing and footwear industries	124.5	137.5	149.4	+10.4	+8.7
461, 464 and 469	Bricks, cement etc industries	129.4	146.5	158.0	+13.2	+7.8
462 and 463	Pottery and glass industries	132.5	152.9	163.7	+15.4	+7.1
Order XVII	Timber industries	143.8	146.4	154.2	+1.8	+5.3
481 to 484	Paper industries	130.0	121.5	125.0	−6.5	+2.9
Order XX	Construction materials	134.6	151.3	163.8	+12.4	+8.3
Part of Order XX	House building materials	135.2	150.9	164.1	+11.6	+8.7

[1] includes crude oil and coal for carbonising. [2] includes petroleum products.

Table B Price index numbers of output (home sales): Percentage changes, December 1976-December 1978

1975=100

1968 SIC Orders or MLH Numbers		Dec 1976	Dec 1977	Dec 1978	Dec 77/ Dec 76	Dec 78/ Dec 77
Orders III to XIX	Output of Manufactured Products	127.0	146.3	158.3	+15.2	+8.2
Orders IV to XIX	Products of manufacturing industries other than food, drink and tobacco manufacturing industries	126.2	143.9	156.0	+14.0	+8.4
	Output of Selected Broad Sectors of Industry					
211 to 229	Food manufacturing industries	131.2	154.4	167.6	+17.7	+8.5
211 to 229 (excluding MLH 219)	Food manufacturing industries (excluding animal and poultry foods)	129.4	156.2	169.6	+20.7	+8.6
Order V	Chemicals and allied industries	123.0	138.4	147.5	+12.5	+6.6
Order VI	Metal manufacturing	135.2	148.5	161.5	+9.8	+8.8
311 and 312	Steel industries	134.0	147.7	159.3	+10.2	+7.9
Orders VII to XII	Engineering and allied industries	125.5	144.3	159.8	+15.0	+10.7
Order VII (excluding MLH 342)	Mechanical engineering	126.2	144.5	159.7	+14.5	+10.5
Order VIII	Instrument engineering	124.5	141.0	154.3	+13.3	+9.4
Order IX	Electrical engineering	122.1	137.7	149.6	+12.8	+8.6
Order XI (excluding MLH 383)	Vehicles	127.3	152.2	170.9	+19.6	+12.3
Order XII	Metal goods industries n.e.s.	129.5	146.9	164.8	+13.4	+12.2
Order XIII	Textile industries	123.9	139.2	151.8	+12.3	+9.1
Order XV	Clothing and footwear	119.8	134.6	148.5	+12.4	+10.3
441 to 445 and 449	Made-up clothing	119.8	133.3	147.2	+11.3	+10.4
461, 464 and 469	Bricks, cement etc industries	134.2	158.1	173.8	+17.8	+9.9
462 and 463	Pottery and glass industries	125.3	149.4	163.7	+19.2	+9.6
Order XVII	Timber industries	124.9	142.5	152.2	+14.1	+6.8
481 to 484	Paper industries	122.0	132.0	139.0	+8.2	+5.3

Table C **Analysis of changes in price quotations for individual items,[1] December 1977-December 1978**

SIC order	Total quotations	Quotations decreased [2]	Quotations unchanged [2]	Quotations increased [2]	Analysis of the quotations that have increased [2]									Average increase (%)
					Under 5%	5-10%	10-15%	15-20%	20-25%	25-30%	30-35%	35-40%	Over 40%	
Food, drink and tobacco (III)	30	0.0	3.3	96.7	90.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Coal and Petroleum products (IV)	25	8.0	12.0	80.0	16.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Chemical and allied industries (V)	1 053	4.3	27.3	68.4	14.5	24.9	16.7	7.2	2.6	1.1	0.2	0.3	0.9	6.7
Metal manufactures (VI)	558	2.5	3.9	93.6	12.6	44.7	20.1	11.3	1.4	0.7	1.4	0.7	0.7	9.8
Mechanical engineering (VII)	1 595	0.6	8.9	90.5	8.0	33.4	28.8	12.3	4.7	1.6	1.0	0.3	0.4	10.1
Instrument engineering (VIII)	350	2.0	30.0	68.0	11.7	27.1	20.0	5.7	2.3	0.3	0.9	0.0	0.0	6.2
Electrical engineering (IX)	632	2.1	13.1	84.8	15.8	30.0	25.9	10.3	2.1	0.2	0.0	0.3	0.2	8.1
Shipbuilding and marine engineering and vehicles (X and XI)	319	0.0	5.6	94.4	7.2	35.5	35.4	14.1	1.3	0.6	0.3	0.0	0.0	10.3
Metal goods nes (XII)	1 026	1.7	10.5	87.8	11.8	33.3	23.9	9.5	5.1	1.7	1.3	0.4	0.8	9.8
Textile industries other than clothing (XIII)	921	4.1	19.2	76.7	18.0	36.3	15.2	4.4	0.9	1.2	0.3	0.2	0.2	6.5
Leather, leather goods and fur (XIV)	50	0.0	48.0	52.0	4.0	26.0	14.0	4.0	4.0	0.0	0.0	0.0	0.0	5.1
Clothing and footwear (XV)	398	2.3	20.3	77.4	13.6	29.9	21.9	7.0	2.0	1.5	0.7	0.5	0.3	7.7
Bricks, pottery, glass, cement, etc (XVI)	588	0.5	10.9	88.6	12.9	34.7	24.6	10.9	3.7	1.4	0.2	0.2	0.0	9.2
Timber, furniture, etc (XVII)	465	3.9	21.7	74.4	15.9	29.3	15.3	6.2	1.9	1.7	1.3	1.3	1.5	7.8
Paper, printing and publishing (XVIII)	693	4.0	20.5	75.5	9.5	30.0	24.8	5.8	3.3	1.5	0.6	0.0	0.0	7.5
Other manufacturing industries (XIX)	742	1.8	24.2	74.0	15.5	33.1	15.9	6.1	1.8	0.8	0.4	0.0	0.4	6.6
1977/78 total	9 445	2.3	16.3	81.4	12.9	32.4	22.0	8.6	2.9	1.2	0.7	0.3	0.4	8.2
1976/77	9 490	4.3	9.7	86.0	9.3	21.2	22.7	17.0	9.4	3.1	1.7	0.7	0.9	11.5
1975/76	10 310	1.2	6.0	92.8	3.2	11.6	18.9	20.7	15.7	9.4	5.2	3.0	5.1	19.7
1974/75	10 117	3.8	6.5	89.7	4.7	11.6	15.9	16.1	14.5	9.2	6.8	3.7	7.2	18.6

[1] Excluding price quotations collected by Ministry of Agriculture, Fisheries and Food and Department of Energy and import price quotations. [2] Expressed as a percentage of the total number of quotations.

Builders beat the weather – with a building to build in

A building – built to build houses in – takes to the air at Newtonhill, south of Aberdeen. This Aberglen Orbits structure was bought by the Skateraw Development Co so that house construction could continue even during bad weather. Orbits spaceframe buildings are used for many purposes in countries as far apart as Norway and Nigeria but this is the first time one has been to prevent weather disrupting schedules on building sites in this country.

Hosiery and other knitted goods: index of production in February

In the three months ended February 1979 the volume of production of hosiery and other knitted goods (including knitted fabrics), seasonally adjusted, was provisionally estimated to have been 9 per cent lower than in the three months ended February 1978.

In using the index numbers shown in the table, it should be borne in mind that, when price increases are large, the various problems associated with constructing a constant value series become more acute. Because of these difficulties the relative accuracy of the estimates is likely to have been reduced in recent years. The actual figures allow for differences in the length of calendar months, but not for other seasonal variations.

Inquiries: 01-212 0017/6474.

Hosiery and other knitted goods, including warp knitting 1975 = 100

1973	105
1974	103
1975	100
1976	106
1977	106
1978 p	104

	Actual	Seasonally adjusted
1976		
1st qtr	92	102
2nd	99	104
3rd	107	107
4th	124	109
1977		
1st qtr	97	108
2nd	98	104
3rd	108	107
4th	121	105
1978		
1st qtr	93	105
2nd	99	104
3rd p	108	106
4th p	115	100
1977		
Jan	95	113
Feb	99	105
Mar	97	105
April	94	104
May	100	104
June	100	104
July	99	108
Aug	102	106
Sep	123	107
Oct	131	103
Nov	127	102
Dec	104	110
1978		
Jan	88	104
Feb	100	106
Mar	92	105
April	101	107
May	93	103
June	103	104
July	94	101
Aug	108	112
Sep	120	105
Oct p	129	101
Nov p	126	102
Dec p	92	97
1979		
Jan p	81	96
Feb p	93	99

p Provisional

Wool textile industry: output in January

The volume of production in the wool textile industry (as measured by the seasonally-adjusted index of production) in January 1979 was 9 per cent lower than in January 1978. Statistics issued by the Wool Industry Bureau of Statistics show that in January 1979 woven fabrics (excluding blankets) were 1 per cent higher than in January 1978; deliveries of worsted yarns (excluding semi-worsted yarn) were 10 per cent lower. Production of wool and hair tops was 7 per cent less and that of man-made fibre tops was 28 per cent less.

Inquiries: Department of Industry, Room 524, Dean Bradley House, 52 Horseferry Road, London SW1P 2AG, tel. 01-212 0017/6474.

Output in the wool textile industry

	Consumption	Production			Deliveries			
	Raw wool (clean weight)	Tops		Woollen yarn [1]	Worsted yarn [2]	Woven fabrics (excluding blankets) [1]		Blankets [3]
		Wool and hair	Man-made fibres			Woollen	Worsted	
	million kg					million sq m		
1968	177.5	96.6	36.4	147.4	98.2	135.8	110.6	27.3
1969	174.5	92.0	42.2	142.2	100.5	130.1	109.2	26.9
1970	153.1	79.7	44.6	129.4	97.6	115.5	99.8	24.6
1971	141.2	66.2	36.6	130.7	93.0	101.9	83.9	28.5
1972	152.3	75.1	45.9	130.9	101.6	99.8	83.7	28.8
1973	136.6	62.2	55.9	135.2	100.0	104.0	88.4	30.6
1974	112.6	43.9	54.8	122.5	87.2	92.1	82.6	28.1
1975	110.6	46.8	44.4	112.1	75.5	76.8	74.6	24.7
1976	119.7	56.5	47.2	108.0	80.8	73.6	69.4	22.8
1977	113.5	52.3	45.3	105.7	81.2	78.8	71.3	22.2
1978	109.0	48.6	43.0	105.7	77.6	77.9	66.2	22.0
1976								
1st qtr	31.0	13.8	11.6	29.4	20.6	16.9	18.2	6.5
2nd	30.5	14.5	12.1	27.9	20.3	19.6	16.9	4.4
3rd	27.6	13.4	10.6	23.7	18.2	19.4	16.9	5.2
4th	30.6	14.6	13.0	27.0	21.7	17.9	17.5	6.5
1977								
1st qtr	32.4	15.3	12.6	29.0	23.1	19.6	18.8	6.7
2nd	29.8	13.9	11.9	27.2	20.2	21.1	18.1	4.8
3rd	24.5	11.1	10.4	23.0	17.5	19.7	16.4	4.4
4th	26.8	12.0	10.4	26.5	20.4	18.4	18.0	6.2
1978								
1st qtr	29.5	13.6	10.6	27.7	20.8	18.5	17.3	5.8
2nd	28.4	12.8	10.8	27.2	19.6	21.6	16.8	4.8
3rd	24.1	10.8	10.3	23.4	17.9	19.1	15.8	5.0
4th	27.0	11.4	11.3	27.4	19.3	18.7	16.3	6.4
1977								
January	10.3	5.0	4.0	9.0	7.2	5.8	5.9	2.4
February	10.2	4.8	4.0	9.1	7.5	6.2	6.0	2.2
March	11.9	5.5	4.6	10.8	8.4	7.6	6.9	2.1
April	9.6	4.6	3.8	8.6	6.4	6.6	5.7	1.7
May	11.1	5.2	4.7	10.0	7.6	7.4	6.6	1.6
June	9.1	4.1	3.4	8.6	6.2	7.1	5.8	1.5
July	7.9	4.2	3.9	6.5	5.6	6.0	5.2	1.1
August	7.6	2.9	2.9	8.4	5.4	6.5	5.2	1.6
September	9.0	4.0	3.6	8.2	6.5	7.2	6.0	1.7
October	9.1	3.9	4.4	9.2	7.1	6.9	6.4	2.0
November	9.7	4.5	3.6	9.5	7.4	6.7	6.5	2.1
December	8.0	3.6	2.4	7.8	5.9	4.8	5.1	2.1
1978								
January	9.7	4.5	3.0	9.3	6.9	6.0	5.8	2.2
February	9.5	4.5	3.1	8.8	6.7	5.9	6.0	1.5
March	10.3	4.6	4.5	9.6	7.2	6.6	5.5	2.1
April	9.7	4.4	3.2	9.2	6.9	6.8	5.5	1.8
May	9.3	4.2	4.1	8.8	6.4	6.9	5.4	1.5
June	9.4	4.2	3.5	9.2	6.3	7.9	5.9	1.5
July	7.0	4.1	3.9	6.6	5.3	6.3	5.0	1.3
August	7.3	2.7	2.4	8.2	6.0	5.9	5.1	1.6
September	9.0	4.0	4.0	8.6	6.6	6.9	5.7	2.1
October	9.1	3.8	4.2	9.7	7.5	6.8	5.9	2.1
November	10.2	4.4	3.6	10.5	7.0	6.8	6.0	2.0
December	7.7	3.2	3.5	7.2	4.8	5.1	4.4	2.3
1979								
January	..	3.7	2.2	9.2	6.4	6.0	5.5	1.6

Notes to table

[1] Estimated. [2] From January 1969 includes semi-worsted yarn: previously yarn of this type was not separately distinguished and the small quantities involved were divided between the worsted yarn headings. In January deliveries of semi-worsted yarn were 0.8 million kg. [3] Woven woollen fabrics include fabrics which are mainly woollen by weight of components and, similarly, woven worsted fabrics include fabrics which are mainly worsted by weight of components.

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As reports of the Annual Censuses of Production have to be presented to parliament, the publication of Business Monitors in the 'PA' series containing these reports has been suspended until the new parliament meets.

Copies of specific issues (including back issues) can be ordered by post (payable in advance) from the library at the Business Statistics Office, Newport, Gwent NPY 1XG, tel. 0633 56111, ext. 2973, telex 497121 – answer back BSONPT G.

Production of man-made fibres in February

In the three months ended February 1979 the volume of production of man-made fibres, seasonally adjusted was estimated to have been 6 per cent lower than in the three months ended November 1978. Total production by weight of man-made fibres in February 1979 was at the same level as in February 1978, output of continuous filament decreased by 7 per cent and staple fibre increased by 5 per cent.
Inquiries: 01-212 0017 or 01-212 6474.

Index of the volume of production 1975 = 100

1973	129
1974	111
1975	100
1976	110
1977	98
1978	105

	Actual	Seasonally adjusted		Actual	Seasonally adjusted
1976					
1st qtr	114	111	July	101	104
2nd	113	108	Aug	78	93
3rd	100	106	Sep	94	94
4th	112	114	Oct	88	88
			Nov	83	82
1977			Dec	75	86
1st qtr	111	107			
2nd	107	102	**1978**		
3rd	91	97	Jan	92	94
4th	82	85	Feb	107	99
			Mar	117	106
1978			April	102	99
1st qtr	106	100	May	118	116
2nd	108	104	June	106	98
3rd	97	104	July	94	96
4th	109	112	Aug	97	115
			Sept	100	99
1977			Oct	114	113
Jan	102	106	Nov	116	114
Feb	116	108	Dec	96	109
Mar	116	107			
April	110	106	**1979**		
May	100	99	Jan	97	100
June	110	103	Feb	104	96

Man-made fibre production

Thousand metric tonnes

	Total	Continuous filament (singles)	Staple fibre
1968	539.1	241.8	297.4
1969	553.9	252.5	301.5
1970	599.4	257.6	341.9
1971	613.1	276.4	336.7
1972	626.5	264.0	362.5
1973	730.8	305.6	425.3
1974	627.6	271.0	356.6
1975	562.5	246.5	316.0
1976	618.4	270.7	347.7
1977	551.8	239.3	312.5
1978	607.2	240.6	366.6
1976			
1st qtr	159.8	70.0	89.8
2nd	157.5	69.7	87.7
3rd	140.4	62.4	78.0
4th	160.7	68.6	92.1
1977			
1st qtr	154.9	67.2	87.7
2nd	150.8	63.9	86.8
3rd	131.0	55.2	75.8
4th	115.1	53.0	62.1
1978			
1st qtr	150.1	60.6	89.5
2nd	156.2	62.2	94.0
3rd	141.6	56.8	84.8
4th	159.3	61.0	98.3
1977			
July	49.5	20.8	28.7
August	37.6	16.0	21.6
September	43.9	18.4	25.5
October	43.5	18.2	25.4
November	36.8	17.9	18.9
December	34.8	17.0	17.8
1978			
January	44.2	19.1	25.1
February	47.6	19.0	28.7
March	58.2	22.5	35.7
April	48.3	19.1	29.2
May	58.5	22.7	35.8
June	49.3	20.3	29.0
July	45.9	18.8	27.1
August	48.2	19.3	28.9
September	47.5	18.7	28.8
October	57.2	21.1	36.1
November	54.3	22.3	32.0
December	47.9	17.7	30.2
1979			
January	47.1	19.3	27.8
February	47.7	17.6	30.1

Source: Production stats: Man-made Fibres Producers Committee. Index of production: Department of Industry.

Cotton industry: production in February

Statistics issued by the Textile Statistics Bureau show that in February 1979 the amount of cloth woven was 2 per cent lower than in February 1978. Production of single yarn decreased by 5 per cent and doubled yarn decreased by 9 per cent.
Inquiries: 01-212 0017/6474.

Production in the cotton industry

Annual totals and weekly averages

	Single yarn [1]		Doubled yarn		Woven cloth	
	Cotton yarn [2]	Spun man-made yarns and mixture yarn, inc. waste	Cotton yarn	Other	Cotton	Man-made fibre and mixtures
	million kg				million m	
1968	171.2	67.5	49.9	52.0	668.2	507.3
1969	166.2	73.2	46.8	60.9	661.5	538.1
1970	158.7	77.4	43.2	57.3	627.6	484.3
1971	133.0	83.3		85.0	559.1	479.8
1972	121.4	81.7		75.4	513.0	469.8
1973	115.4	92.5		82.1	453.2	502.3
1974	101.3	87.7		74.7	409.5	505.3
1975	94.4	76.4		68.4	405.4	503.0
1976	106.9	76.1		69.4	374.5	492.9
1977	98.1	77.6		69.8	368.3	497.5
1978	91.3	75.8		60.6	380.0	458.4
1977						
Jan	2.2	1.7		1.5	7.7	10.3
Feb	2.3	1.7		1.6	7.9	10.7
Mar [3]	2.2	1.8		1.6	7.9	10.7
Apr	1.7	1.4		1.2	6.3	8.8
May	2.3	1.9		1.6	7.9	11.1
June [3]	1.5	1.2		1.1	6.9	8.8
July	1.6	1.2		1.2	4.3	7.5
August [3]	1.9	1.5		1.4	7.6	9.5
Sep	1.5	1.2		1.2	6.3	9.0
Oct	2.0	1.6		1.4	7.9	10.5
Nov [3]	2.0	1.6		1.4	7.8	10.2
Dec	1.4	1.1		1.0	5.9	7.6
1978						
Jan	2.0	1.5		1.3	7.7	10.0
Feb	2.0	1.6		1.3	8.0	10.0
Mar [3]	1.6	1.2		1.1	6.8	8.2
Apr	2.0	1.6		1.3	8.2	9.4
May [3]	1.8	1.6		1.2	7.5	8.7
Jun	1.4	1.3		1.0	8.2	8.8
July	1.6	1.3		1.1	4.6	6.6
August [3]	1.8	1.6		1.2	7.9	8.6
Sep	1.5	1.3		1.0	6.5	8.2
Oct	1.9	1.7		1.3	8.0	10.0
Nov [3]	2.0	1.7		1.3	8.0	9.7
Dec	1.4	1.2		1.0	5.9	7.6
1979						
Jan [3]	1.8	1.4		1.1	7.5	9.3
Feb	2.0	1.5		1.3	8.0	10.2

[1] Spun in cotton industry. [2] Including yarns wholly of cotton waste and mixture yarn of cotton and cotton waste. [3] Average of five weeks.

Patents recorded 'licences of right'

Under section 46 of the Patents Act 1977 the register was noted 'licences of right' in respect of the following patents on the date specified:

3 April 1979

1271422 Matsushita Electric Industrial Co Ltd
Tape machine
1294436 Matsushita Electric Industrial Co Ltd
An electron beam generator
1322420 Matsushita Electric Industrial Co Ltd
Dry cell
1330028 Matsushita Electric Industrial Co Ltd
Electron beam generator
1346142 Matsushita Electric Industrial Co Ltd
Photoelectric punched card reading device
1352382 Matsushita Electric Industrial Co Ltd
Electron beam generator
1354379 Matsushita Electric Industrial Co Ltd
Continuous signal producing system
1367232 Matsushita Electric Industrial Co Ltd
Antenna means
1386675 Matsushita Electric Industrial Co Ltd
Improvements in and relating to cathode ray image display system
1387777 Matsushita Electric Industrial Co Ltd
Alkaline cells
1390135 Matsushita Electric Industrial Co Ltd
Improvements in and relating to insulated gate semi-conductor device
1390561 Matsushita Electric Industrial Co Ltd
Radio receiving system
1391686 Matsushita Electric Industrial Co Ltd
Magnetic recording and reproducing method and system
1399178 Matsushita Electric Industrial Co Ltd
Image display system
1426896 Matsushita Electric Industrial Co Ltd
Liquid crystal display system
1432382 Matsushita Electric Industrial Co Ltd
Method of driving a liquid crystal display device
1434801 Matsushita Electric Industrial Co Ltd
Acceleration sensing device
1439272 Matsushita Electric Industrial Co Ltd
High voltage generator
1172280 Matsushita Electronics Corporation
Insulated gate type field effect transistor
1264575 Matsushita Electronics Corporation
Improvements in and relating to an electrostatic focussing-type television picture tube
1289073 Matsushita Electronics Corporation
A stable multi-vibrator
1304298 Matsushita Electronics Corporation
Automatic gain control amplifier
1314317 Matsushita Electronics Corporation
Metallic-vapour lamp
1330045 Matsushita Electronics Corporation
Small-sized fluorescent lamp
1379011 Matsushita Electronics Corporation
Method of manufacturing semi-conductor devices
1426276 Matsushita Electronics Corporation
Optical communication system
1442693 Matsushita Electronics Corporation
A method of manufacturing a junction field effect transistor
1294440 United States Department of Energy
Detector system for a scanning electron microscope
1331896 United States Department of Energy
Hemodialyser with tapered slit blood ports and baffles
1443127 United States Department of Energy
Pulsed multiline CO_2 laser oscillator apparatus and method
1448789 United States Department of Energy
Diagnoses of disease states light
1467887 United States Department of Energy
Method of fabricating graphite or amorphous carbon for use as a skeletal prosthesis and product thereof
1135536 Agfa-Gevaert Aktiengesellschaft
Method and apparatus for automatic exposure regulation in a photographic colour printing process
1293499 Ford Motor Co Ltd
Motor vehicle instrument panel element
1371351 Constructors John Brown Ltd
Marine loading/unloading system
1532374 Sprague Electric Company
Glass-ceramics

Any person who claims that the proprietor of the patent is, and was at the time of entry, precluded by a contract in which the claimant is interested from granting licences under the patent, may within three months after the making of the relevant entry, apply to the Comptroller on patents form 31/77 for cancellation of the entry.

I. J. G. Davis, Comptroller

Release dates of economic statistics to be published in May

This information is issued by the Central Statistical Office on behalf of the Government Statistical Service and other organisations as a guide to the dates of publication of major economic series in May 1979. The dates are those which departments, or other organisations concerned, are aiming at, and would normally expect to meet. The release of the series in this notice may be affected by industrial action. Further inquiries about individual series should be addressed to the source named.

Publication date and series	Method of release	Source
May		
2 Wed		
UK official reserves (Apr)	PN	Treasury
Capital issues and redemptions (during the month of April)	PN	Bank of England
3 Thurs		
Energy trends	PN	Department of Energy
8 Tues		
Retail sales (Mar – final)	PN	Department of Trade
Wholesale price index numbers (Apr – prov)	PN	Department of Industry
Hire purchase and other instalment credit business (Mar)	PN	Department of Trade
9 Wed		
London clearing banks' monthly statement (mid – Apr)	PN	CLCB
UK banks' eligible liabilities, reserve assets, reserve ratios and special deposits (mid – Apr)	PN	Bank of England
10 Thurs		
CBI industrial trends survey (Apr)	PN	CBI
Finished steel consumption and stock changes (1st qtr – prov)	PN	Department of Industry
Provisional figures of vehicle production (Apr)	PN	Department of Industry
Central government transactions (including borrowing requirement) (Apr)	PN	Treasury
11 Fri		
Retail prices index (Apr)	PN	Department of Employment
Usable steel production (Apr)	PN	BSC/BISPA
Building societies' receipts and loans (Apr)	PN	BSA
14 Mon		
Retail sales (Apr – prov)	PN	Department of Trade
Housing starts and completions (Mar)		Department of the Environment
Slum clearance (1st qtr)	PN	
House renovations – work completed (1st qtr)		
Building society house prices and mortgage advances (1st qtr)	PN	Department of the Environment
15 Tues		
Turnover of the catering trades (1st qtr)	PN	Department of Trade
16 Wed		
Balance of payments current account and overseas trade figures (Apr)	PN	Department of Trade/ CSO
Basic rates of wages and normal weekly hours (Apr)		Department of Employment
Monthly index of average earnings (Mar)	PN	
17 Thurs		
Consumers' expenditure (1st qtr – 2nd preliminary estimate)	PN	CSO
UK banks' assets and liabilities and the money stock (mid-Apr)	PN	Bank of England
London dollar and sterling certificates of deposit (mid-Apr)	PN	Bank of England
18 Fri		
Index of industrial production (Mar – prov)	PN	CSO
20 Sun		
Department for National Savings' monthly progress report (Apr)	PN	Department for National Savings
21 Mon		
Construction – new orders (Mar)	PN	Department of the Environment
Turnover of the motor trades (1st qtr)	PN	Department of Industry
22 Tues		
Unemployment (May – prov)	PN	Department of Employment
Unfilled vacancies (May – prov)		
Cyclical indicators for the UK economy (Apr)	PN	CSO
23 Wed		
New vehicle registrations (Apr)	PN	Department of Transport
24 Thurs		
Unemployment (Apr – final)		
Employment in the production industries (Mar)		
Overtime and short-time working in manufacturing industries (Mar)	*Gazette*	Department of Employment
Stoppages of work due to industrial disputes (Apr)		
Car and commercial vehicle production (Apr – final)	PN	Department of Industry
Bricks and cement production (Apr)	PN	Department of the Environment
Public sector borrowing requirement and details of local authority borrowing (1st qtr)	PN	CSO
Preliminary estimate of gross domestic product based on output data (1st qtr)	PN	CSO
Manufacturers' and distributors' stocks (1st qtr – prov)	PN	Department of Industry
Capital expenditure by the manufacturing, distributive and service industries (1st qtr – prov)	PN	Department of Industry
25 Fri		
Sales and orders in the engineering industries (Feb)	*Trade and Industry*	Department of Industry
31 Thurs		
Energy trends	PN	Department of Energy

PN Press notice.

Insurance Companies Act 1974: authorisations and revocations

The following authorisations to carry on insurance business in Great Britain were issued by the Secretary of State for Trade under section 3(1) of the Insurance Companies Act 1974 during the period 1 March to 31 March 1979.

Name of insurer and registered office or address in GB	Country of incorporation if outside GB	Date of authorisation	Class or classes of insurance business for which authorisation was issued
Groupe des Assurances Nationales Incendie Accidents compagnie Francaise d'Assurances et de Reassurances, Incendie, Accidents et Risques Divers, Societe Anonyme, Minster House, Arthur Street, London EC4R 9BJ	France	20.3.79	3, 10, 13

Under the powers conferred on him by paragraph 2 of schedule 4 of the Insurance Companies (Classes of General Business) Regulations 1977 the Secretary of State for Trade has accepted that the companies listed below were carrying on the classes of insurance business shown in the table immediately before 1 January 1978 and are accordingly authorised to carry on those classes of business. These classes of business are additional to the ones which the companies were automatically authorised to carry on as 'corresponding business' by virtue of paragraph 1 of schedule 4 to the regulations.

Name of insurer and registered office or address in GB	Country of incorporation if outside GB	Date of acceptance	Class or classes of insurance business for which authorisation was accepted
The North of England Protecting and Indemnity Association Ltd, Douglas House, 4 Neville Street, Newcastle upon Tyne, NE1 5DS	—	22.3.79	17

The following authorisations to carry on insurance business in Great Britain were revoked by the Secretary of State for Trade under section 9 of the Insurance Companies Act 1974 during the period 1 March to 31 March 1979.

Name of insurer and registered office or address in GB	Country of incorporation if outside GB	Date of revocation	Class or classes of insurance business for which authorisation was revoked
The Threadneedle Insurance Company Ltd, 1 Threadneedle Street, London EC2R 8BE	—	6.3.79	2, 14, 17
Tower Insurance Company Ltd, 19 Athol Street, Douglas, Isle of Man	Isle of Man	19.3.79	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17
Union and South-West Africa Insurance Company Ltd, National Employers' House, 52 Anderson Street, Johannesburg 2001, South Africa	South Africa	5.3.79	1, 2, 3, 7, 8, 9, 10

Classes of business

OLT	Ordinary long term insurance business
IND	Industrial assurance business
1	Accident insurance business
2	Sickness insurance business
3	Land vehicles insurance business
4	Railway rolling stock insurance business
5	Aircraft insurance business
6	Ships insurance business
7	Goods in transit insurance business
8	Fire and natural forces insurance business
9	Damage to property insurance business
10	Motor vehicle liability insurance business
11	Aircraft liability insurance business
12	Liability for ships insurance business
13	General liability insurance business
14	Credit insurance business
15	Suretyship insurance business
16	Miscellaneous financial loss insurance business
17	Legal expenses insurance business

'T & I' index inquiries

Readers wanting to know when articles and items of information were published in *Trade and Industry* should consult the published indexes which are issued free to subscribers. For material published in recent months, inquiries of this kind can be made to the Department of Industry Library's indexing section, tel. 01-215 5842 or 01-215 5879.

British Film Fund (the 'Eady' levy) distributions

Provisional distributions made by the British Film Fund Agency for the period ended 24 February 1979.[1]

Title of film	Date of registration	Provisional payment (£)	Payee [2]
High cost films [3]			
Watership Down	22.9.78	8 513	Cinema International Corporation (UK)
Confessions Of A Driving Instructor	21.7.76	5 333	Columbia Pictures Corporation Ltd
Confessions Of A Window Cleaner	28.8.74	5 333	Columbia Pictures Corporation Ltd
Force 10 From Navarone	6.12.78	41 268	Columbia Pictures Corporation Ltd
Jabberwocky	25.3.77	931	Columbia Pictures Corporation Ltd
Midnight Express	21.7.78	44 634	Columbia Pictures Corporation Ltd
Rosie Dixon Night Nurse	10.2.78	270	Columbia Pictures Corporation Ltd
Sinbad And The Eye Of The Tiger	23.6.77	382	Columbia Pictures Corporation Ltd
Born To Run	16.9.77	711	Walt Disney Productions Ltd
Candleshoe	8.2.78	2 722	Walt Disney Productions Ltd
Escape From The Dark	1.6.76	458	Walt Disney Productions Ltd
One Of Our Dinosaurs Is Missing	24.2.76	434	Walt Disney Productions Ltd
All Creatures Great And Small	11.2.75	350	EMI Films Ltd
Death On The Nile	28.9.78	41 731	EMI Films Ltd
It Shouldn't Happen To A Vet	29.3.76	346	EMI Films Ltd
The Man Who Fell To Earth	17.3.76	184	EMI Films Ltd
Sweeney 2	17.4.78	2 134	EMI Films Ltd
Warlords of Atlantis	14.6.78	886	EMI Films Ltd
Stevie	30.10.78	283	Enterprise Pictures Ltd
Side By Side	24.12.75	1 131	GTO Films (Distributions) Ltd
Carry On Emmanuelle	21.11.78	1 431	Hemdale International Films Ltd
Hound Of The Baskervilles	30.10.78	4 578	Hemdale International Films Ltd
Tommy	15.4.75	1 796	Hemdale International Films Ltd
The Legacy	22.9.78	2 316	Pethurst Ltd
The Adventures Of Sherlock Holmes' Smarter Brother	7.1.76	851	Rank Film Distributors Ltd
The Ghoul	28.5.75	327	Rank Film Distributors Ltd
Holocaust 2000	20.2.78	126	Rank Film Distributors Ltd
Legend Of The Werewolf	30.10.75	327	Rank Film Distributors Ltd
The Thirty Nine Steps	20.11.78	22 183	Rank Film Distributors Ltd
The Wild Geese	5.7.78	10 560	Rank Film Distributors Ltd
Cruel Passion	17.2.78	694	Target International Pictures Ltd
The First Great Train Robbery	20.12.78	16 202	United Artists Corporation Ltd
Juggernaut	9.10.74	118	United Artists Corporation Ltd
The Man With The Golden Gun	11.12.74	156	United Artists Corporation Ltd
Revenge Of The Pink Panther	13.7.78	3 086	United Artists Corporation Ltd
The Spy Who Loved Me	6.7.77	468	United Artists Corporation Ltd
Superman	13.12.78	226 269	Warner Brothers Distributors Ltd
Low cost films [4]			
A Lustful Lady	26.6.78	389	Border Film Productions (London) Ltd
Naughty Girls	4.9.75	222	Border Films Productions (London) Ltd
Take An Easy Ride	21.3.77	841	Childs Associates (Films) Ltd
Pressure	8.3.78	503	Crawford Films Ltd
The Deadly Females	24.11.76	1 049	Donwin Productions Ltd
Eskimo Nell	16.1.75	142	Eagle Films Ltd
Max Wall Funny Man	3.7.75	362	GTO Films (Distributions) Ltd
Radio One On The Road	14.10.76	268	GTO Films (Distributions) Ltd
Remember Me This Way	22.4.74	163	GTO Films (Distributions) Ltd
Shut Down	25.1.78	16 412	GTO Films (Distributions) Ltd
Bangladesh I Love You	17.1.79	3 535	ITC Film Distributors Ltd
Frightmare	3.2.75	161	Miracle Films Ltd
The Rise And Fall Of Ivor Dickie	29.3.78	190	New Realm Distributors Ltd
Intimate Teenage Secrets	2.3.76	247	Nitrev Entertainments Ltd
The Brute	7.11.77	143	Rank Film Distributors Ltd
Erotic Inferno/ Adam And Nicole	20.5.75	321	Reynoldstown Ltd
Let Us Play Sex/ The Intruder	1.6.76	160	Reynoldstown Ltd
Adventures Of A Taxi Driver	17.5.76	463	Salon Productions Ltd
Hardcore	7.3.77	350	Target International Pictures Ltd
Let's Get Laid	2.6.78	1 186	Target International Pictures Ltd
Penelope Pulls It Off	30.12.75	106	Target International Pictures Ltd
Sweet Virgin	8.3.78	230	Target International Pictures Ltd
Come Play With Me	25.3.77	1 430	Tigon Film Distributors Ltd
Intimate Games	21.4.76	584	Tigon Film Distributors Ltd
The Playbirds	19.6.78	9 887	Tigon Film Distributors Ltd
The Comeback	22.5.78	1 362	Peter Walker (Heritage) Ltd
Sextet	6.8.76	175	Watchgrove Ltd
Short films [5]			
Christmas Tree	19.12.75	10 920	The Black and White Colour Film Co Ltd
The Morning Spider	25.3.77	360	The Black and White Colour Film Co Ltd
Highways And Byways	8.2.78	244	Carrickford Productions Ltd
Cruisin'	27.5.77	143	Cinema International Corporation (UK)
French Leave	28.3.77	314	Cinema International Corporation (UK)
Harvest	6.9.78	254	Cinema International Corporation (UK)
Hot Wheels	5.9.78	2 528	Cinema International Corporation (UK)
Iron Men	30.8.78	147	Cinema International Corporation (UK)
Marine Merchants	11.5.76	118	Cinema International Corporation (UK)
Revolutions In Fast Circles	29.7.76	170	Cinema International Corporation (UK)
Bovver Boots	19.5.78	163	Columbia Pictures Corporation Ltd
Footsteps	28.10.74	130	EMI Films Ltd
Natural High – The Commodores On Tour	27.6.78	109	EMI Films Ltd
Sea Area Forties	2.4.76	244	EMI Films Ltd
A Pride Of Penguins	23.2.77	347	Films of Scotland
Dawn Breakers	2.1.76	288	Hemdale International Films Ltd
The Meeting Place	19.12.77	123	Polonius Film Services
Romantic Journey	25.8.77	148	Polonius Film Services
Bon Bini Welcome	4.10.76	181	Queensway Promotions Ltd
California Triple	21.8.78	1 001	Queensway Promotions Ltd
Don't Call It Frisco	18.12.78	3 069	Queensway Promotions Ltd
Gateway To The Presidents	27.5.76	293	Queensway Promotions Ltd
Golden Gate	27.10.75	135	Queensway Promotions Ltd
Good Health	3.11.78	599	Queensway Promotions Ltd
Good Olde England	29.11.77	295	Queensway Promotions Ltd
Guards On Parade	7.12.78	4 522	Queensway Promotions Ltd
Guns At The Wood	8.12.75	239	Queensway Promotions Ltd
Highway 5	29.11.77	377	Queensway Promotions Ltd
The Italian Taste	21.8.78	379	Queensway Promotions Ltd
Sabre 226	31.3.78	139	Queensway Promotions Ltd
Sea World	19.12.77	2 319	Queensway Promotions Ltd
Three Jewels	5.7.77	457	Queensway Promotions Ltd
Two Man Made Wonders	19.3.75	164	Queensway Promotions Ltd
Vintage Italiana	31.3.78	420	Queensway Promotions Ltd
Viva Verona	1.2.79	650	Queensway Promotions Ltd
Yellow Rose	27.10.75	172	Queensway Promotions Ltd
Yep And Nope	18.6.75	443	Queensway Promotions Ltd
John And The Magic Music Man	15.10.76	105	RSTC ROSC Ltd
Captain Scott Goes East	24.8.78	255	Rank Film Distributors Ltd
Fast Company	3.2.78	114	Rank Film Distributors Ltd
The Great Pram Race	1.2.78	1 000	Rank Film Distributors Ltd
Happy To Meet	8.8.75	710	Rank Film Distributors Ltd
The End Of The Road	26.9.77	132	United Artists Corporation Ltd
Free As A Bird	15.12.76	212	United Artists Corporation Ltd
London Skateboards	20.7.78	227	United Artists Corporation Ltd

Notes

[1] Excludes all firms earning less than £100 in the current period and all newsreels. Details of these films will be shown in the annual tables. [2] The payee is either the maker or the assignee of the maker's rights, or a person nominated to receive payments on behalf of the maker or his assignee. [3] Long films (ie films with a running time of 33⅓ minutes and over) the labour costs of which exceed £50,000. [4] Long films, the labour costs of which do not exceed £50,000. [5] Films with a running time of less than 33⅓ minutes.

Economic Trends

A monthly journal, compiled by the Central Statistical Office, for those who want to follow the main trends of the economic situation in the United Kingdom. It brings together the main statistical series of employment, output, consumption, trade and finance, and each issue contains special feature articles on some aspect of the statistics.

Price £2.10. Annual subscription including annual supplement and postage £31.41. From HMSO, PO Box 569, London SE1 9NH.

Cinema admissions and takings in January

During January, counted as a four week period, the weekly average of admissions to cinemas in Great Britain was 2.42 million and the weekly average of gross box office takings was £2.39 million. The comparable figures for January 1978 were 2.26 million and £1.99 million.

Registrations of British, community and foreign films

The following are details of films registered by the Department of Trade under the Films Acts 1960 to 1970, as amended by the European Communities Act 1972, during the week ended Friday, 20 April 1979.

BR/E indicates that the film is a British quota film, EC that the film is a quota film. The date which forms part of the registration number of each is the date on which quota life of the film expires.

Title of film	Registered no.	Playing time minutes	Date of registration	Registered in the name of	Maker's name
BRITISH					
The Riddle Of The Sands	BR/E 40005/21/4/84	102	19 April	Rank Film Distributors Ltd	Worldmark Films Ltd
Islands In The Sun	BR/E 40009/21/4/84	15	19 April	Columbia-EMI-Warner Distributors Ltd	Global Films Ltd and Queensway Promotions Ltd
Sudan: The Giant Awakes	BR/E 40010/21/4/84	25	19 April	Columbia-EMI-Warner Distributors Ltd	Carrickford Productions Ltd
Movietone News 2602	BR/E 39843/21/4/84	8	20 April	British Movietonews Ltd	British Movietonews Ltd
COMMUNITY					
Confessions Of A Naked Virgin	EC 39998/21/4/84	61	17 April	Childs Associates (Films) Ltd	Rapid-Film GmbH, Munich
Turtle On Its Back	EC 40000/21/4/84	105	17 April	Connoisseur Films Ltd	Filmoblic, Paris
King Dick	EC 40004/21/4/84	66	17 April	Eagle Films Ltd	Monti Film, Rome
FOREIGN					
The Last Supper	F 39999	113	17 April	Connoisseur Films Ltd	Santiago Llapur and Camilo Vives, Havana
Miracle Of Flight	F 40001	5	17 April	Gladiole Films Ltd	Terry Gilliam, London
The Warriors	F 40002	94	17 April	Cinema-International Corporation (UK)	Lawrence Gordon, California
Casey's Shadow	F 40003	94	17 April	Columbia-EMI-Warner Distributors Ltd	Rastar Productions Inc, California
The Hot One	F 40006	105	19 April	Cinema International Corporation (UK)	MGM Inc, California
Patrick	F 40007	110	19 April	Brent Walker Film Distributors Ltd	Australian International Film Corporation Pty Ltd, Victoria
The Hardcore Life	F 40008	107	19 April	Columbia-EMI-Warner Distributors Ltd	Feitschans Productions Inc and Paul Shrader Productions Inc, California

Studies in official statistics no. 31

Regional accounts

This booklet, prepared by the Central Statistical Office, describes the data sources and methods used in estimating gross domestic product, personal incomes and components of final expenditure for Scotland, Wales, Northern Ireland and the eight economic planning regions of England. A continental shelf region is also distinguished; this includes the profits of the UK offshore oil and gas activity. Certain of the estimates are further subdivided within the south-east region to distinguish the Greater London area.

The booklet provides an essential background for regional economists and others concerned with the interpretation of the published data in the regional accounts. The concepts adopted for the individual items within the accounts and the limitations of the data and methods used to produce the estimates are fully discussed.

Price £1.75 net (£1.90 by post). ISBN 0 11 630161 9

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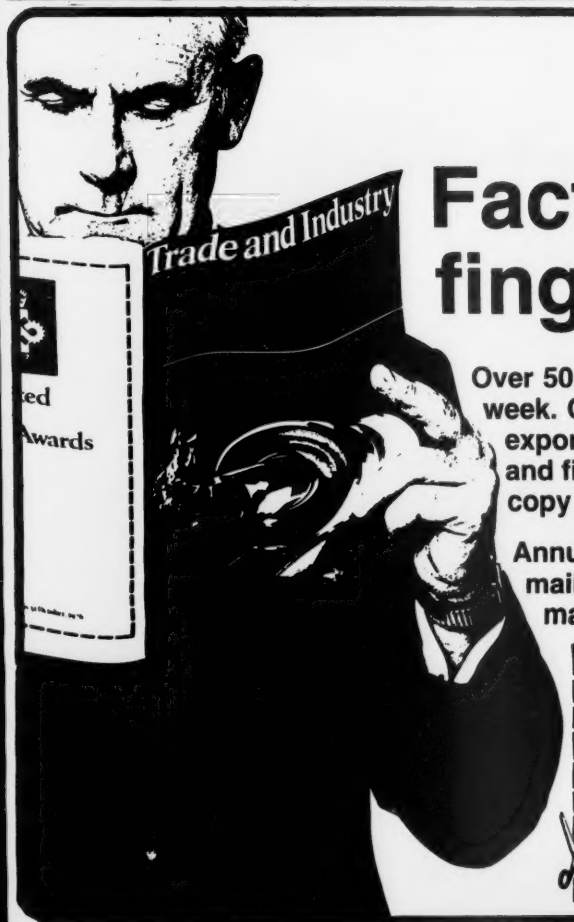

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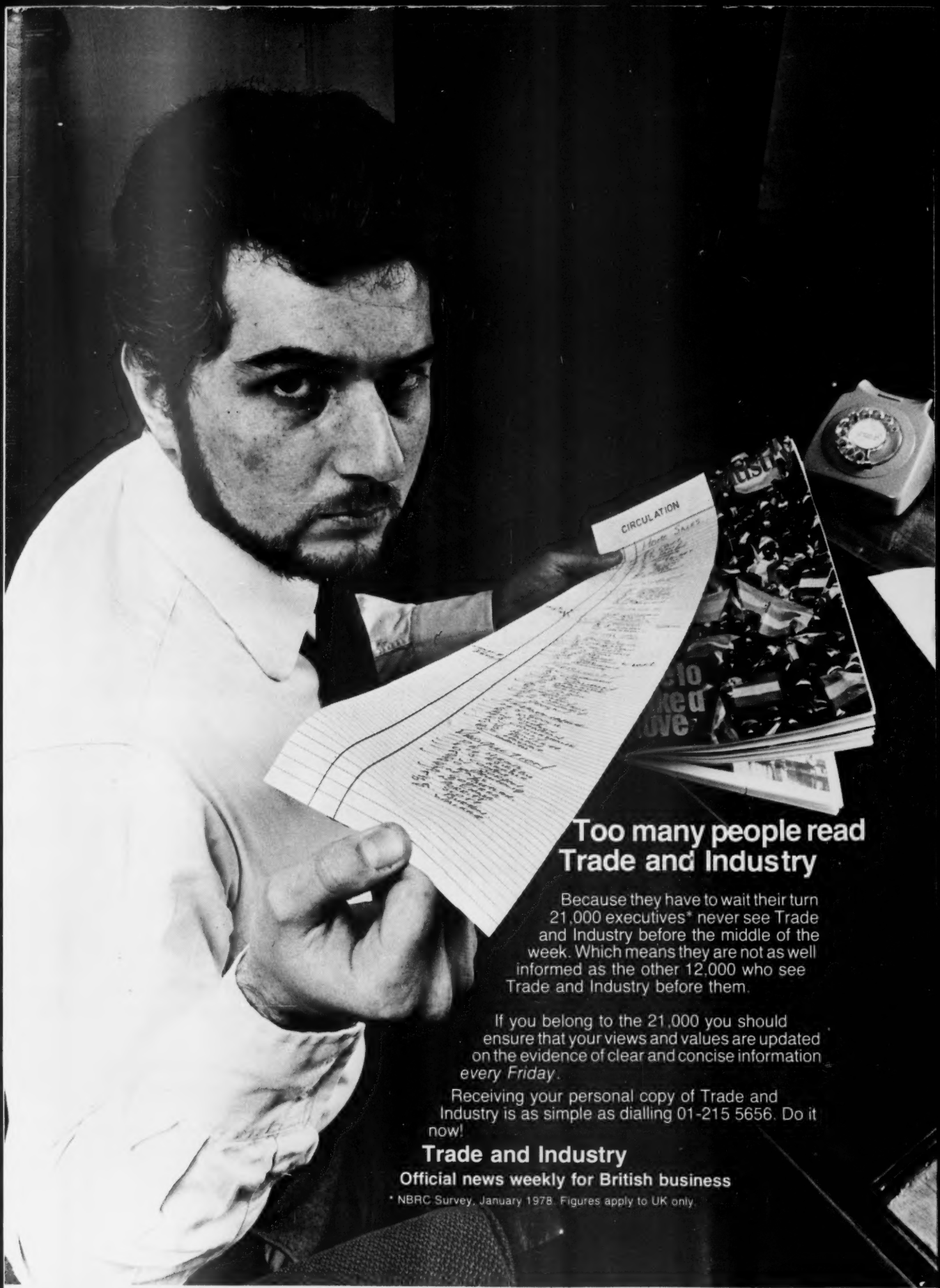

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ISBN 0 11 725638 2
ISSN 0006-5323